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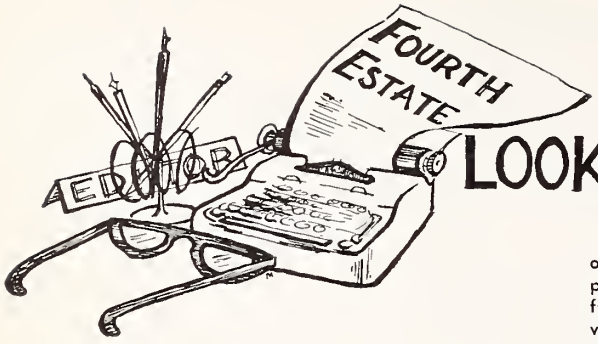
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LOOKS AT MEDICINE

This section of THE JOURNAL is devoted to the presentotion of opinions which oppeor on the editorial pages of the public press, ond which are of interest to the medicol profession. Its function is to review comments which moy be fovoroble or unfovoroble to medicine. Members are invited to submit editorial clippings for this column.

Requiring Seat Belts

Slowly, some modest dividends are resulting from the campaigns by health, safety and other groups for seat belts in automobiles.

Wisconsin has just passed a law which makes seat belts mandatory on all '62-model cars.

New York has joined Michigan and California in a new legal requirement that all new cars sold in those states after Oct. 1, 1962, must have metal anchorages for the installation of belts.

Starting with the 1962 model year, the federal government is requiring seat belt anchorages for both front and rear seats in all cars it purchases.

Presumably this means that some time next year all new cars will have at least the front seat anchorages, wherever they are sold. Bigger questions remain: How many motorists will actually buy the belts, and how many will use them steadily if they do?

Today only three percent of this country's passenger cars are thus equipped, and an auto industry survey showed that just 36% of drivers with belts used them all the time.

Contrast this with progressive, safety-conscious Sweden, where more than half the nation's cars are equipped not just with the lap belts we settle for, but with shoulder or chest harness.

New argument should not have to be made for the tremendous value of good seat belts. Tests have proved convincingly that they can save lives and prevent injuries on a big scale.

If anyone, however good a driver, imagines that he is somehow immune from highway dangers, he should take note of the estimate by U. S. Surgeon General Luther Terry that 70% of licensed U. S. drivers will be involved in some kind of auto accident in the next five years.

He estimates that 5,000 lives would have been saved in 1960 alone, by use of seat belts.

Kokomo Tribune
Oct. 17, 1961

Medical Care Minus Socialism

Modern medical care generally in the United States today, medical care for the aged in particular, and socialized medicine versus "free" medicine were subjected to a searching impartial analysis here the other night by one who has well earned his national reputation for most effectively doing so

He is Dr. Edward R. Annis, a Florida surgeon, who expounded most informatively and convincingly on this vitally important present-day problem before a capacity audience at the Scottish Rite Auditorium, as well as before a radio audience. The remarkable public response to his coming here obviously was attributable in no small measure to the national prominence which Dr. Annis acquired in television debates with United Auto Workers President Walter Reuther and Minn. Sen. Hubert Humphrey last winter.

Dr. Annis propounded his vitally important subject in an impartially searching manner in which he included the medical profession in a frank objective introspection in which he leveled objective criticism upon some of its members. However, he declared that the malfeasance of a few of its members patently cannot obscure the fact that the great majority of the medical fra-

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FOURTH ESTATE

Continued from page 16

ternity are sincerely devoted today to providing the world's highest standard medical services at a reasonable cost consistent with maintaining this enviable standard. And he drew the obviously sound final conclusion that if every phase of medical care today is not perfect, socialized medicine indeed is not the answer to correcting it.

He cited how the King Bill would not, as its sponsors say, be merely an extension of Social Security, but instead would be a new welfare bill, financed by Social Security taxpayers, who, he pertinently emphasized are wage earners—including persons who make too little to pay federal income tax. But, he said, ironically under the King Bill, the beneficiaries would be the rich who pay no Social Security tax on investment income, and the poor alike.

Much different, said Dr. Annis is the Kerr-Mills Law of 1960 (backed by the American Medical Association). This would, he said, help some two to four million persons 65 and over, who have enough to live on, but not enough to defray the cost of major illness. The remainder are eight and one-half million persons, 65 and over, who have their own private health insurance, and two and one-half million are definitely welfare cases.

Dr. Annis said the two to four million are rightly a public responsibility of their neighbors working together as government with a state medical care program for pensioners, with the federal government contributing funds but no control. And under the Kerr-Mills Bill the taxpayers of the United States would be called upon to care only for people who are in need of help, and not people who are well able to care for themselves.

But under the *"Social Security approach,"* said Dr. Annis, everyone who is over 65 would be benefited and recipients of Social Security would be eligible, including the million over 65 who are still working, *"whether they need it or not, or whether they want it or not."*

With reference to criticism sometimes voiced over medical and drug costs today, Dr. Annis said, *"we don't practice horse and buggy medicine anymore."* When we buy a drug today we are not only paying for past research but for the continuous research which will make even better things available to the American people. As an example of costs, he cited how one drug firm spent $25 million to develop something to combat pneumonia which formerly killed many thousands of persons, only to have this drug supplanted by the sulfa drugs, capable of saving even more lives.

Dr. Annis' wise counsel is indeed timely, coming at a time when Congress is considering legislation which would establish a system of compulsory medical care for the aged, with health care costs to be financed by higher Social Security taxes, and when the sound concept of amply helping all who need help, has already been enacted into law.

Fort Wayne News-Sentinel
Sept. 22, 1961

Quack, Quack

The first annual National Congress on Medical Quackery, meeting in Washington, has heard that Americans spend more than a billion dollars annually on fraudulent cure-alls in hopes of getting well, recapturing lost youth or effortlessly losing weight.

The Congress, sponsored by the American Medical Association and the Food and Drug Administration, was told that medical quacks "reap an incalculable harvest annually of money . . . and disillusionment." One result of the sessions will be a more intensive campaign to reduce this traffic in misery among the gullible —although it is not easy to combat quackery that plays so cleverly on human emotions.

It can be said also that the harvest of money being reaped as the result of nostrums sold to the public by economic quacks of late makes the billion taken yearly from the susceptible for medical "cures" look pretty small. The number of today's economically disillusioned is impressive, too, and it is not likely to grow smaller as time goes by.

What we would like to see is an annual National Congress on Economic Quackery at which some of the widely current economic fallacies would be exposed for what they are. There's no dearth of topics for discussion. For a starter, how about something simple, such as the theory that Federal spending somehow adds to the nation's wealth?

But on second thought, it might be hard to find anyone to sponsor a Congress on Economic Quackery who is not already involved in some form of economic legerdemain. Sometimes we



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FOURTH ESTATE

Continued

have the feeling that all the non-quackish economists around probably could meet in a telephone booth.

Wall Street Journal
Oct. 12, 1961

Good Evening

By Clifford B. Ward

Dr. Edward R. Annis, a decent top-notch surgeon from Miami, who debated Senator Humphries and Walter Reuther on TV and who spoke here several nights ago, is devoting, I am told, a whole year to travel around the country trying to make the American public aware of the dangers of socialized medicine.

Physicians and surgeons are all human beings. A few of them are dishonest. A few of them are incompetent. A few of them have misbehaved in a manner to bring discredit not only on themselves, but on their entire profession. But I will contend that taken as a whole, there isn't a more decent, honest, dedicated bunch of people than the nation's doctors and surgeons. Most of them have been so busy keeping people alive that they have never developed a public relations sense.

As a matter of fact they have never exactly felt that there was a need to build up public friendship for their calling. It is hard to believe that any great number of persons is going to dislike you, if you are available 24 hours a day to save lives, and in fact are not only available but actually working much of that time in serious medical and surgical emergencies.

Physicians Enjoy Hard Work

Most of the hardest working doctors will pooh pooh any credit given to them for their dedication to relieving other human beings, saying usually that they enjoy doing what they do. I think this is true. Most doctors wouldn't last very long if they didn't thoroughly enjoy their work.

No one gets half as tired doing something he enjoys as he does doing something he detests.

And any doctor worth his salt, despite satisfaction he takes in his work, is always carrying around with him a lot of worries about his patients, even those patients whose ills are minor.

But doctors and surgeons should not make the mistake of thinking that the public fully knows all about their profession and assume that the public is always on their side. The public should be, but the public isn't always, and that is why fellows like Doctor Annis can accomplish much traveling about the country telling the story of modern American medicine, which is the best in the world, despite what publicity-seeking politicians at Washington may be saying.

The revolting thing about the attitude that the bleeding-heart politicians always easily assume is that they alone have humane consideration for the poor, the sick and the needy. The medical and surgical profession of the United States is made up of people, who on the whole, know much more about the poor, the sick and the needy than almost any other group in the country.

Doctors Humanitarians

Furthermore they daily do more for the poor, the sick and the needy than some of the bleeding hearts have done for them in a whole lifetime. There isn't a doctor in the country worthy of being called one who hasn't on many occasions given the best of care and the best of attention to patients from whom he was absolutely certain he would not receive even a cent, and from whom all he expected was gratitude, which also in many cases he never got.

Sure, doctors as a group have faults. They are individualists who find it easy not to pull together. They also have among them men who make just a bit too much show of the money they earn by working hard for it, and who sometimes let themselves be talked into ways of spending money that doesn't look good to patients who are less fortunate materially. But these are minor matters.

Don't let some bleeding-heart politician tell you that he is a humanitarian, but that your doctor isn't. That's hogwash.

Ft. Wayne News-Sentinel ◄

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1. Clark, T. E., and Jochem, G. G.: Angiology 11:361 (Aug.) 1960.

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Volume 55 — January 1962 — Number 1

Second Place Winner
Journal Medical Essay Contest

Groenblad—Strandberg Syndrome: Case Report and Review

*MICHAEL H. LASHMET, M.D.**
Indianapolis

FREQUENTLY, the astute association of cutaneous with organ-specific signs and symptoms can lead to the solution of a perplexing diagnostic problem. Such is the case in the Groenblad-Strandberg Syndrome, or pseudoxanthoma elasticum with retinal angioid streaks. Proper appreciation of these seemingly unrelated findings allows one to institute therapy more intelligently, and also to inform the patient of his problem and its prognosis. The following typical case illustrates these facets of a syndrome.

Case Report

A 42-year-old Caucasian female was admitted because of recurrent left-sided headaches of several months' duration. She also complained of angina-like chest pains, and left-sided weakness. By chance, she noted a marked visual impairment in her left eye in April 1960. She did not mention any gastro-intestinal symptoms.

The general physical examination showed yellowish plaques over her arms, neck, and abdomen (Figures 1 and 2) and bizarre fundus lesions in both eyes (Figures 3, 4 and 5). No evidence of cardiac dysfunction was found, and the peripheral pulses were adequate. Neurologic examinations did not uncover any reproducible deficits.

The ocular examination, which was limited because of her fatigue, revealed vision of 20/20 R. E. (with a pinhole), and hand motion at one foot L. E. Xanthelasma were noted on her lids. Her pupils, globe motility, ocular tension, and corneas were normal. Both fundi showed typical angioid streaks, hemorrhages, and an elevated glial scar in the left macular region. The streaks and hemorrhages were more pronounced in the left eye. Vessels and discs were normal in both eyes.

A biopsy from a forearm lesion was "consistent with pseudoxanthoma elasticum." The pathologist reported focal collections of increased numbers of swollen, fragmented, degenerating fibers in the middle and deep dermis. These fibers showed some tendency to basophilism. The intervening collagen fibers were felt to be normal.

*Resident in Ophthalmology, Indiana University Medical Center.



FIGURE 1
Cutaneous changes in left antecubital fossa.

Historical Review

Individual components of this syndrome have been recognized for some time. Balzer, in 1884, first described the skin lesions and felt that they represented one of the xanthomatoses. Darier, in 1896, correctly identified and defined the cutaneous lesion, and coined the term pseudoxanthoma elasticum. The angioid streaks were first recorded by Doyne in 1889, and were classified as an entity by Plange. Several years passed until both Groenblad and Strandberg, independently in 1929, linked together the skin and eye lesions. Since then the disease has been known as the Groenblad-Strandberg Syndrome.

Comment

This rare entity is seen equally in both sexes between the second and fifth decades. Its etiology is obscure, but there is some evidence that it is inherited as a recessive trait. Basically, this disease is an abiotrophy in which there is a generalized premature elastic tissue degeneration including the arterial tree. Although the most familiar features are located in the eye and skin,



FIGURE 2
Cutaneous changes in the neck.

the ocular, cutaneous or vascular part of the syndrome may predominate.

The ocular manifestations, which are almost always bilateral, may include angioid streaks, hemorrhages, macular lesions, pigmentary changes, whitish areas of choroidal or circumpapillary atrophy, drusen and exudates. The angioid streaks (Figure 3), which are asymptomatic, are seen as an irregular plexus of reddish to dark brown streaks located between the retinal and choroidal vessels, and are unconnected with either. They emanate from a whitish peripapillary, star-shaped bed (Figure 5) and radiate irregularly to the peripheral fundus where they terminate in tapered ends. They vary in width, and may be outlined by whitish borders. The pigmentary changes may be in the form of large irregular deposits to a fine stippling of the macula or peripheral retina.

Visual impairment results from macular degeneration (50% of cases) or hemorrhages (35% of cases) especially in the macula. The macula may show colloid or disciform degeneration, or choroidal atrophy. Although many of the cases remain stationary, the ultimate visual prognosis is poor because of these subsidiary macular changes.

The cutaneous manifestations, which are symmetrical, are found in the neck, axilla, lower abdomen, thighs, back, genital region, elbows, hands and arms. The flexural folds are often lax and stretched similar to the skin in cutis hyperelastica (Ehlers-Danlos Syndrome). The skin is grooved, ridged, and slightly nodular, and may be in buff or yellow patches. These areas are often prone to pyogenic infections. Histologically, there is an increased amount, and degeneration of the dermal elastic fibers, but without involvement of the collagen fibers.

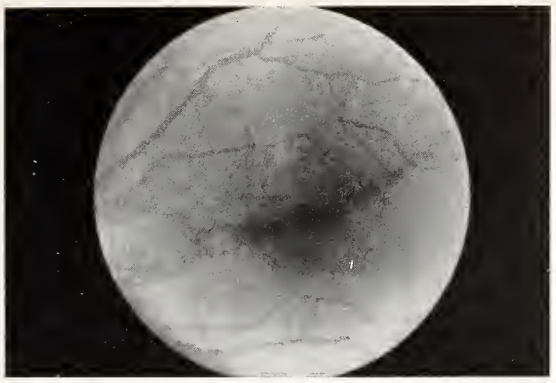


FIGURE 3
Typical retinal angioid streak.

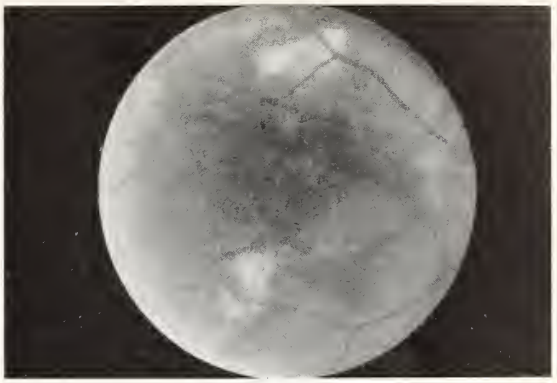


FIGURE 4
Retinal angioid streaks, exudates, and small hemorrhages.

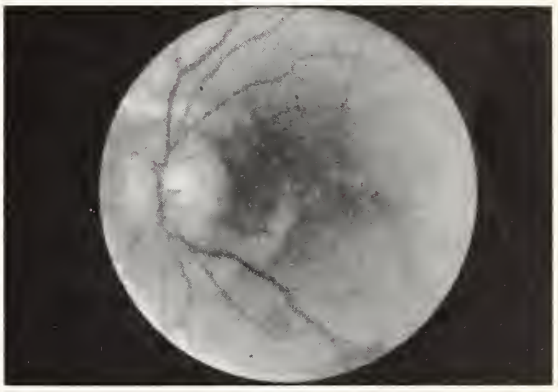


FIGURE 5
Retinal angioid streaks emanating from the peripapillary bed, and larger hemorrhages.

Vascular Manifestations

The vascular manifestations may be widespread, and are due to elastic tissue degeneration with premature calcification of the media which is easily detected with roentgenograms. These changes seem to have a predeliction for the following systems: As related to the cardiovascular system, hypertension, aortic dilatation, and angina pectoris have all been recorded. In the extremities, one may observe peripheral arterial insufficiency related to weak or absent peripheral pulses. This is often noted by the third decade of life. The patient may complain of paresthesias, numbness, chilling or intermittant claudication.

Another unusual manifestation is massive gastrointestinal hemorrhage which may be fatal. If operative intervention is attempted, the surgeon may find that the entire mucosal surface of the stomach oozes blood without any discrete bleeding points to attack surgically. One other systemic manifestation, which may be on a vascular basis, is nonspecific mental changes.

Although angioid streaks are a prominent feature of this syndrome, they are seen in several other seemingly unrelated disorders. These include sickle-cell disease in which the streaks are found in six percent of cases, and also osteitis deformans (Paget's Disease). Of note, a patient has been reported in whom the diagnosis of both Paget's Disease and Groenblad-Strandberg Syndrome has been made, and also in one patient who had both sickle-cell disease and Groenblad-Strandberg Syndrome. In Paget's Disease, there is question whether an elastic tissue disturbance in the osseous structures might not explain the pathologic changes. The degenerative elastic tissue changes have also been described in sickle-cell disease. As has been pointed out by other authors, perhaps one could conceive of "elastic tissue" diseases similar in nature to the "collagen" diseases.

Pathology

From the foregoing statements, one can easily infer that this disorder is truly a syndrome capable of involving many organ systems. It has been well established that the vascular manifestations are the result of elastic tissue degeneration and calcification of the media of the vessels. The actual cause of the retinal findings has not been so decisively determined.

Many theories have been advanced, and most of them are of historical interest only. Perhaps the most commonly held current theory stems from the thoughts of Kofler who in 1917 felt that the streaks were due to ruptures in Bruch's membrane. His views were made without the benefit of pathologic specimens, but in recent years, histologic agreement has been offered by the works of Bock (1938), Hagedoorn (1939),

Klein, and Verhoeff (1948). In brief, the theory holds that there is degeneration and rupture of the elastic elements of Bruch's membrane, and more specifically, the elastic lamina or outer layer of the two layers composing this membrane. The membrane stains basophilicly, but not uniformly so that it appears to vary in thickness. Gaps and ruptures have been noted in this layer which are pulled apart by elastic tension. The membrane becomes calcified, and the subretinal hemorrhages may be due to fractures in it causing ruptures in the choriocapillaris. It has been postulated that if a hemorrhage, transudation, or connective tissue proliferation occurred between the pigment epithelium and Bruch's membrane in the macular region, the fundus picture would be clinically very similar to a disciform macular degeneration. Variation in the fluid leakage or proliferative stimulus thus could easily account for the different macular lesions.

Summary

A typical case of the uncommon Groenblad-Strandberg Syndrome has been presented along with a brief history and a resumé of the various systemic manifestations of this elastic tissue disorder. Also, brief mention was made regarding the possible histologic origin of some of these manifestations. The concept of "elastic tissue" diseases, similar to the "collagen" diseases, has been reiterated. It is hoped that this paper will bring to mind the possibility of the Groenblad-Strandberg Syndrome in cases of obscure occlusive arterial disease, unexplained melena or hematemesis, in addition to cases showing the usual features of the skin and retinal lesions.

REFERENCES

1. Berlyne, G. M.: Pseudoxanthoma Elasticum, *The Lancet* 7115:9, Jan., 1960, p. 77.
2. Cowper, A. R.: Angioid Streaks. *A.M.A. Arch. Ophth.* 51:762, 1954.
3. Duke-Elder, Sir W. S.: *Text-Book of Ophthalmology*, Vol. 3, St. Louis, The C. V. Mosby Company, 1941, p. 2413.
4. Egan, T. A.: Angioid Streaks of the Retina. *Georgetown U. Med. Center Bull.* 11:39, 1957.
5. Geeraets, W. J., Guerry, DuPont III: Angioid Streaks and Sickle-Cell Disease. *Amer. J. Ophth.* 49:450, 1960.
6. Geeraets, W. J., Guerry, DuPont III: Elastic Tissue Degeneration in Sickle-Cell Disease. *Amer. J. Ophth.* 50:213, 1960.
7. McKusick, V. A.: Genetic Factors in Diseases of Connective Tissue. *Am. J. Med.* 26:285, 1959.
8. Paton, D.: Angioid Streaks and Sickle-Cell Anemia. *A.M.A. Arch. Ophth.* 62:852, 1959.
9. Scheie, H. G., Hogan, T. F.: Angioid Streaks and Generalized Arterial Disease. *A.M.A. Arch. Ophth.* 57:855, 1957
10. Verhoeff, F. H.: Histological Findings in a Case of Angioid Streaks. *Brit. J. Ophth.* 32:531, 1948.
11. Woodcock, C. W.: Pseudoxanthoma Elasticum, Angioid Streaks of Retina, and Osteitis Deformans. *A.M.A. Arch. Derm. and Syph.* 65:623, 1952. ◄

Coming—The Bureaucratic Superstate?

The Kefauver-Celler Bill poses a real and present danger to the drug industry, but also to the vastly greater area of freedom for American business and for Americans. If this bill becomes a model, then no area of American life is free from the threat of increasing central control, increasing bureaucratic conformity, and decreasing individual freedom. The American medical profession is also under attack. We are asked to believe that the only way to provide our senior citizens with adequate medical care is by compulsory payroll taxes on all wage-earners, by compulsory programs of insurance, by compulsory participation in one massive, rigid government-controlled scheme . . . What sense does such a proposal make? It makes no good sense at all, except in an America that has given up its heritage of freedom and joined the dull, drab ranks of the bureaucratic superstate.—Richard M. Nixon to Pharmaceutical Advertising Club.

Kyphoscoliosis

*THOMAS A. ELLIOTT, M.D.**
Elkhart

LET US CONSIDER and try to sense the situation of the hunchback. Wm. Hay, Esquire, who had achieved the House of Commons, felt deeply about his personal problem and wrote "Deformity, An Essay," which was published in London in 1754 by R. & J. Dodsley. I quote:

"Know that I am scarce five feet high; that my back was bent in my mother's womb and that in person I resemble Esop, the Prince of Orange, Marshall Luxemburg, Lord Treasurer Salisbury, Scarron and Mr. Pope; not Thersites and Richard the Third whom I do not claim as members of our society:—The first being a child of the Poet's fancy; the last misrepresented by historians who thought that they must draw a Devil in a bad shape. If born in Sparta, I would have been thrown like a useless thing into a cavern by Mount Taygetus: Inhuman Lycurgus.† Thus to destroy your own species—Agesilaus confutes your maxim.—Is the carcass the better part of the man? . . . Those who had care of my infancy—tried every art to correct the errors of Nature—(failing) they endeavored to conceal them."

He remarks that Esop was not young at the time of his death when he was murdered at Delphos, that the Prince of Orange was scarce past the meridian of life, that Lord Treasurer Burleigh was 58, and that the Duke died at about the age of 57, while the Earl of Salisbury was considerably younger. Though Mr. Pope died in middle age, there were rumors that his father was also deformed and had lived to the age of 75.

He then reports in detail on the signs and symptoms of a bladder stone which caused him much pain and hematuria over many years and writes the case history of this and his deformity. He preaches moderation—"O Temperance! Thou Goddess most worthy to be adored"—"A fast is better than a Lord Mayor's feast." He hopes that the deformed "being conscious that they are less amiable than others, they may not suspect that they are less beloved." He speaks of hemoptysis in his youth which was blamed on raw water and gives an account in his essay how best to surmount the difficulties in life when one is neither handsome nor strong and can neither run nor fight well.

In literature, the hunchback has been used to evoke a feeling of evil, fear or sympathy, as Quasimodo in Victor Hugo's "The Hunchback of Notre Dame." He has also been used quite unsympathetically and mirthfully, such as, "The Little Hunchback"—causes celebre's—Arabian Nights, and in a similar story in "Legends and Stories of Ireland."

In an entire sympathetic biography on Charles Proteus Steinmetz, his deformity is referred to only by innuendo. He was one of the world's greatest mathematicians and electrical engineers and died a rather typical kyphoscoliotic death at the age of 58 in 1923. Discussion of deformity was somewhat taboo, even at this time, it is obvious.

Etiology and Classification:

Some authors[1] present a rather exhaustive classification based on their own experiences and references in the literature:

* From the Department of Medicine, Elkhart Clinic, Elkhart.

† From Plutarch.

A. Congenital:
   1) With x-ray evidence of vertebral defect.
   2) Without bony defects but associated with other congenital defects.

B. Acquired:
   1) Idiopathic (only 10% are severely deformed)
   2) Neuromuscular:
      a) Paralytic polio
      b) Friedrich's ataxia, syringomyelia, neurofibromatosis, spastic paralysis.
   3) Thoracic disease:
      a) Empyema and pleural retraction.
      b) Thoracoplasty.
   4) Vertebral Disease:
      a) Tuberculosis.
      b) Tumor
      c) Osteomalacia
      d) Fracture-dislocation.

Others[7] present a simpler classification:

A. Idiopathic (great majority)—Begins often insidiously in childhood.
B. Injury—tuberculous spondylitis, muscle weakness.

Factors which influence the degree of deformity include[7]:

1. Initiating mechanism.
2. Age of onset.
3. Number of vertebrae involved.
4. Age of stabilization.
5. Degree of dwarfing of the thorax.

Certainly, in the large group of so-called idiopathic cases first seen in adult life, a careful history, physical examination and appropriate studies, even in severe cases, throws little light on the etiology, or indeed, even the actual definite age of onset of the condition. In the cases I have seen, one is often able to get a well-defined family history and certainly it is highly probable that this, in some instances, may be an heritable disease of connective tissue, such as McKusick speaks about in his writings on Marfan's syndrome.

Pathologic Physiology

Since the time of Hippocrates, the hunchback has been considered heir to an illness characterized by dyspnea, cyanosis and premature death, and it has been previously recognized that both heart and lungs were involved in this illness. Hippocrates in "On the Articulations," translated by Francis Adams, said, "and in those cases where the gibbosity is above the diaphragm, the ribs do not expand properly in width, but forward, and the chest becomes sharp-pointed and not broad, and they become affected with difficulty of breathing and hoarseness; for the cavities which inspire and expire the breath do not attain their proper capacity."

Thoracic deformities that do not cause shortening and distortion of the vertebral column, such as pectus excavatum, etc., scoliosis alone or kyphosis alone, rarely cause significant cardio-respiratory dysfunction even as age progresses. We shall concern ourselves mainly with kyphoscoliosis, which is severe enough to cause heart and lung disease.

In the absence of considerable kyphosis (greater than 20 degrees), scoliosis of less than 100 degrees usually fails to produce cardio-respiratory insufficiency.[1] Pathologically, in severely deformed patients with terminal pulmonary and cardiac disturbances that are dominant, and without other causes for heart and lung disease, there are certain characteristics. The kyphosis and scoliosis have shortened and deformed the thoracic cavity and compromised its contents. At the apex of the gibbus, or in the crevices caused by the sharp rib angulation, there is often not room for normal organ containment, or function. There is dilation and hypertrophy of the right heart with small distorted lungs and a distorted tracheo-bronchial tree. In the absence of other complicating disease, there is usually only mild focal emphysema with alveolar dilation while the bronchi and bronchioles are relatively normal with no definite obstruction.[1] There may be atelectatic areas of various size and patches of infection and fibrosis with retraction.[8] The small vessels of the lung often show hypertrophy and hyperplasia of the medial layers of the precapillary vessels.[1]

Some investigators feel that there is rarely significant kinking of the great vessels based on pathologic[1] and angiocardiographic[3] studies, while others[10] have felt that there is occasionally a coarctation effect from aortic kinking, as the aorta follows the scoliotic curve which peculiarly enough is convex to the right in 75 to 80% of cases.[1] Angiocardiographic studies[3] also reveal various marked displacements, but no compression of the heart per se, with the smaller vessels of the lung being rather widely separated with decreased blood flow in areas of emphysema and crowded compactly together in lung compressed

areas. The volume of the abdominal cavity, on the other hand, is pretty well preserved by the yield of the abdominal wall anteriorly and there are no significant compressive features.

Physiology

Some workers[1] have felt that the pulmonary function studies in kyphoscoliosis closely resembled the studies on normals who are wearing a very tight chest corset. They find, of course, a decreased total lung capacity with the residual volume occupying an unusually large proportion of the total lung capacity because the vital capacity itself is far more seriously impaired than is the residual volume. The inspiratory capacity is especially affected and the maximum breathing capacity is, of course, also decreased.

These workers feel that the decreased air flow occasionally noted late in expiration is not due to bronchial obstruction (where there is no associated bronchitis or asthma), but due to discoordinate contractions of the poor chest bellows and they note that the chest may grind and creak audibly during forced expiration. In these "pure" cases, there is no air trapping or delay in nitrogen wash-out and broncho-dilators do not increase air flow. The compliance of the lung is greatly decreased with an increased work of breathing and increasing the depth of respiration further increases the work of breathing. The patient gives up the fight to breathe deeply against increased resistance and adopts a rapid, shallow respiration with small tidal volume so that the effective alveolar 0-2 tension remains low, alveolar ventilation being sacrificed for dead space ventilation. This is economic in terms of the work load, but ultimately costly, as it fosters hypoventilation and later CO-2 retention. Kyphoscoliotics require from 4.1 to 11.0 cc of oxygen used metabolically per liter of ventilation, while in normals this is usually less than one.[1]

Early there is an increase of pulmonary artery pressure only with exercise because of the normal increase of pulmonary blood flow and volume during exercise, meeting a mechanically restricted thoracic and vascular bed. Eventually, with time and various complications or sequelae, a vicious cycle develops with polycythemia and hypervolemia and an increased pulmonary artery pressure. Eventually, there is continuous pulmonary hypertension present even at rest and sometimes despite a finally low cardiac output, as the myocardium is unable to respond to increased diastolic pressure.

Clinically, the findings are much what one could expect from the physiologic disturbances as they gradually progress toward respiratory insufficiency and cor pulmonale. Functional murmurs are quite common,[7] and while some have noted the frequent association of bronchitis, bronchiectasis, asthma and supraventricular paroxsymal tachycardia, others have felt that pure kyphoscoliotic processes accounted for the picture in the majority of patients if one ignores the terminal situations.

The incidence from U. S. Selective Service data (1943)[1] reveals some degree of kyphoscoliosis affects one percent of the population, but 90% of this one percent are very mild in their manifestation and require no attention. Higginbotham,[9] from his work and the literature says that kyphoscoliotic heart disease was noted in from one in 10,000 to one in 18,790 pregnancies.

Prognosis

Apparently, morbidity is uncommon before the age of 35 and quite common after the age of 40, with perhaps some differences in the pre- and post-antibiotic eras. Higginbotham[9] quotes Chapman as noting the average age of death at 30 years of age in 79 patients studied with kyphoscoliotic heart disease and he also quotes Jenson as saying that from 1910 to 1936 in kyphoscoliotic pregnant patients, there was a maternal mortality varying from three to 30%. Pulmonary insufficiency or infection, congestive failure, embolic phenomena, or inability to meet a challenge such as pregnancy, surgery or injury are usually the cause of death.

Treatment

The course of treatment is usually self-evident with vigorous attacks on intercurrent, and especially pulmonary infections, therapy of congestive failure, and during times of crisis, mechanical aids to inspiration, expiration, coughing and bronchial hygiene. Large doses of caffein as a respiratory stimulant have been used by some and certainly the maintenance of morale and prophylactic inoculations against infectious diseases are the duty of the physician. Heroic measures are especially worthwhile during a temporary challenge, such as post-operative, pneumonic or pregnancy situations.

Some[5] have mentioned between 1,000 to 1,500 ccs. vital capacity as being necessary or desirable

if a surgical procedure or a pregnancy is to be survived. Certainly, great foresight is necessary for the effective use of prophylactic orthopedic measures to prevent or ameliorate a disability that will appear 20 or 30 years in the future. Avoidance of respiratory depressants is very important and entire papers[6] have been devoted to the hazards of morphine in kyphoscoliosis.

Finally, Bucy[2] quotes McKenzie in 1927 as first emphasizing laminectomy and incision of a taut dura mater for the rare paraplegic complication due to kyphoscoliosis. This usually occurs in the period of rapid growth, but paresis below the deformity may develop years after the kyphoscoliosis first appears and a case is reported with surgical decompression one and a half years after the onset of the paraplegia, definitely effecting some reversal of the neurological deficit.

BIBLIOGRAPHY

1. Bergofsky, E. H., Turino, G. M., Fishman, A. P.: Cardiorespiratory Failure in Kyphoscoliosis. *Medicine* (Baltimore) 38:263-317, Sept., 1959.
2. Bucy, P. A., Gokay, H.: Paraplegia Resulting from Severe Kyphoscoliosis *JAMA* 157:1210-1212, April 2, 1955.
3. Dubilier, W. Jr., Steinberg, I., Dotter, C. T.: Kyphoscoliosis; angiocardiographic findings. *Radiology* 61:56-59, July, 1953.
4. Dugan, R. J., Black, M. E.: Kyphoscoliosis and Pregnancy, *Am. J. Obstet. and Gynec.* 73 (1) :89-93, Jan., 1957.
5. Fear, C. L.: Kyphoscoliosis and Pregnancy; Cardiorespiratory Implications. *West J. Surg.* 59:411-422, Aug., 1951.
6. Fischer, J. W., Dolehide, R. A.: Hazard of Morphine in Kyphoscoliosis. *JAMA* 156:1274, Nov. 27, 1954.
7. Fishman, A. P., Turino, G. M., Bergofsky, E. H.: Disorders of the Respiration and Circulation in Subjects with Deformities of the Thorax. *Mod. Concepts. Card. Dis.* 27 (4) :449-453, April, 1958.
8. Gray, F. D., Jr.: Kyphoscoliosis and Heart Disease. *J. Chron. Dis.* 4:499-507, Nov., 1956.
9. Higginbotham, W. H.: Kyphoscoliotic Heart Disease Complicating Pregnancy. *Am. J. Obstet. and Gynec.* 65:424-427, Feb., 1953.
10. Kidd, E. G., Briggs, J. F.: Kyphoscoliotic Heart Disease; 5 cases. *Minnesota Med.* 35:42-44, Jan., 1952.
11. Webb, C. F., Harder, J. A.: Kyphoscoliosis and Pregnancy. *Obst. and Gynec.* 2:654-657, Dec., 1953.
12. Wells, P., McGaughey, H. S.: Pregnancy and Kyphoscoliosis. *Am. J. Surg.* 86:486-488, Oct., 1953. ◄

From *The Journal* Fifty Years Ago

. . . In an article on the "Control of Bleeding in Operations for Brain Tumors," Cushing describes the various "tricks" which contribute to the success of these difficult procedures. He points out that the control of hemorrhage by means of the clamp or gauze sponge is out of the question in operations on the brain. The methods which he recommends are the following: (1) Careful slow operating, (2) postponement of the final stage of the operation if there has been an excessive loss of blood in making the scalp incision or in cutting through the bone, or if the patient takes the anesthetic badly, (3) the use of pads of cotton, dry or wet with hot salt solution, to control the oozing,* (4) use of bits of muscle or of blood-clot to promote coagulation of the blood, (5) use of a special clip of silver wire to close vessels inaccessible to the ligature, (6) the prevention of postoperative hemorrhage by keeping the patient quiet after operation and by taking every possible precaution against his vomiting. . . . —W. D. Gatch, M.D.: Progress in Surgery During the Year 1911 *J.I.S.M.A.*, January, 1912, p. 2.

* To prevent the loss of such pads they may be tied to a thread which hangs out of the wound.

The number of successful suicides in Indiana nearly matches the number of deaths from all communicable diseases.

Some Statistics on Suicide

PAUL H. MARTIN, M.D.
Elkhart

I PRESUME THAT few people would consider that suicide is of considerable magnitude in Indiana. However, when we realize that there are about the same number of successful suicides in Indiana as there are deaths from *all* the communicable diseases, we can say this condition is of great public health importance.

Approximately 500 suicides are reported each year; the rate in recent years has been between 10.7 and 11.7 per 100,000 population. I doubt if anyone knows how many suicides occur in the United States. It is reported that there were 16,760 suicidal deaths in 1957. This does not, of course, take into consideration many deaths reported as accidental that actually were suicidal. Some of these could be overdosage with the barbiturates or tranquilizers and gas poisoning whether in the kitchen or in the garage. I should not be surprised but that an appreciable number of our too many automobile deaths are produced by a self-destructive reaction.

Three 10-Year Periods Used

Since local data are more meaningful the death records of Elkhart County have been studied in reference to suicides. This county was used because the records are available to me; I cannot believe it is unique insofar as suicides are concerned. Three 10-year periods were used in this study. (Table 1.) The first, 1902-1911, was selected because it appears to me that psychic trauma during this period should have been at a minimum, taxes were low and there was no war nor threat of war. The second period, 1941-1950, covers World War II and the third, 1951-1960, covers the latest period of time. During the first 10-year period Elkhart County had a population of less than 50,000; with the 103 suicides for that time it is obvious that a fantastically high rate was produced. I do not have a total explanation for the low average age of the suicides in that period. However, it was noted that there were but 13 over 60 years of age while the other two periods had 32 and 27, respectively.

In addition to the older average age in the successive periods there are some other points of interest in this study. Various writers have stated that in the United States the ratio of male to female suicides is approximately 4:1; in this study it is essentially 2:1. Except for less use of firearms by the females, which might be expected, there appears to be little sex difference in methods used. The use of firearms by the male was very common. (Table 2.) Use of phenol during the 1902-1911 period was common. The use of the barbiturates as a suicidal agent has appeared in recent years but is not as prevalent as I would have supposed.

Consider Non-Fatal Attempts

The size of the suicide problem cannot be measured by successful attempts alone; the nonfatal attempts must be considered also. Probably the magnitude of the latter is not known but one can gain some idea of this at a Poison Control Center. Each of the general hospitals in our county has such a facility. The USPHS Poisoning Form that the physician makes out after treatment of the poisoning case is sent to the

Total Number	1902—1911	1941—1950	1950—1960
284	103	94	87
Males (190)	68	57	65
Average age years	42.0	53.1	54.4
	GSW — 17	GSW — 26	GSW — 33
	Phenol — 13	Hanging — 14	Hanging — 10
	Hanging — 8	Gas — 8	Gas — 7
	Morphine — 7	Phenol — 2	Barbiturate — 5
	Arsenic — 6	*Misc. — 7	Drowning — 3
	Drowning — 5		Stab — 2
	Strychnine — 2		*Misc. — 5
	*Misc. — 10		
Females (94)	35	37	22
Average age years	41.7	51.6	50.2
Methods	Phenol — 10	Hanging — 12	Hanging — 5
	Hanging — 7	Gas — 11	Barbiturate — 4
	Morphine — 4	Drowning — 2	Drowning — 3
	Drowning — 4	GSW — 4	GSW — 3
	Arsenic — 3	*Misc. — 8	Gas — 2
	Gas — 2		Phenol — 2
	*Misc. — 5		*Misc. — 3

*One method or method not specified.

TABLE I

Elkhart County Health Unit for home followup by one of our nurses. The majority of these cases has been accidental ingestion of many different substances; most victims are in the 18-36 month age group. This is, of course, an interesting and serious problem in itself. However, I have been impressed by what seems to me to be a large number of intentional ingestions not resulting in death. Our nurses do not make home visits on these cases because we feel that it might interfere with the medical or psychiatric treatment being given by the attending physician. The majority of these have been followed by a confidential communication from the physician.

These intentional ingestions became even more interesting when we noted the serious outcome of two of the cases. They are noted briefly:

1. A white female, aged 35, who was a known epileptic, swallowed 15 or 20 phenobarbital tablets on April 11, 1959. On Dec. 19 of the same year she jumped or fell from the third floor of a building and was killed.

2. A Negro male, aged 27, swallowed an unknown number of sulfur fumigation cubes on Nov. 12, 1959. Less than a month later he killed his wife by beating her with a piece of wood; he was convicted and sentenced to the electric chair.

The majority of non-fatal intentional ingestions were in white females. The youngest was 13 and the oldest was 70; average age was 31.3 years. Various sedatives accounted for most of the cases. The barbiturates have been the most common, followed by Seconal, Chloral Hydrate, Tuinal, Darvon, Sominex and Sleep-Eze. Among the miscellaneous items were toilet bowl cleaner, iodine, Black Leaf 40 and blue ointment.

Seriousness of Attempt

There is no doubt but that this is the most difficult item to evaluate correctly. The family physician or the psychiatrist is in a better position to determine this; in other words, the clinical assessment of the patient is of prime importance. Closely allied to this is a determination of the true intent of the patient; whether or not he had an earnest desire for self-destruction or only desired attention and sympathy—a British author calls this "pseudocide." Some of the factors that should be considered in the determination of intent are:

1. Type of drug or method employed.

2. Amount of drug ingested or the degree of method employed.

3. Whether or not there was a certainty of

early discovery, that is, admission of actions through personal contact or a telephone call, a "suicide note" left in a conspicuous place, etc.

I would estimate that the majority of these unsuccessful attempts were not a determined effort at self-destruction. Two or three of the cases, because of the seriousness of the condition reported, might be considered as being determined attempts. Regardless of the true intent of the patient it is of importance to note the number of these patients who were known as emotional or psychiatric problems prior to the reported episode. Approximately one-fourth of them had received or were receiving psychiatric treatment at the time. Confidential reports from the physicians included such statements as: "Has long been a minor behaviour problem," "Patient is an incipient schizophrenic," "Manic depressive," "Patient long known to be mentally unstable," "Gradual deepening of simple depressive state." Approximately 50% of these patients had psychiatric treatment following the episode.

The precipitating factors of these episodes can be placed in two main categories:

1. Resentment of parental supervision or family bickering, in the case of the adolescent.

2. Financial difficulties or arguments with the spouse, in the case of the adult.

There are several questions that come to mind about this subject. The first is philosophical, is taking one's life his own business and does anyone have the right to interfere? Another question is: what is the magnitude of this problem? The ratio of unsuccessful to successful attempts is not known; various authors have placed this as high as 5:1. Then if we consider the two, we can say that we have a major problem. I am sure that if we had as many poliomyelitis cases and deaths as we have unsuccessful and successful suicides we would be experiencing a national panic.

GSW	=	83
Hanging	=	56
Gas (Illuminating and auto exhaust)	=	30
Phenol	=	27
Drowning	=	17
Morphine	=	11
Barbiturates	=	9
Arsenic	=	9
Strychnine	=	2
Stab Wound	=	2
Miscellaneous	=	38

TABLE II

And lastly—what can we do about this? Naturally this is the big question. I think we can say that a person is not normal if he defies the most important natural law, that of self-preservation. If this is true, we can say:

1. Suicide or attempted suicide is a symptom and not a disease; they are signs of underlying emotional difficulty.

2. Treatment should be directed toward the disease. ◄

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Today's Medical Economics

One of the critical problems facing medicine today is the growing tendency of the working man to equate health care with a municipally owned service while at the same time demanding discount house prices.—Justin C. Smith, Dean, Law-Medicine Center, Western Reserve University.

Histoplasmosis and Chest X-Ray Calcification In North Central Indiana

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WALLACE S. TIRMAN, M.D.
ROBERT D. DODD, M.D.
*South Bend**

HISTOPLASMOSIS is a fungus disease, caused by histoplasma capsulatum. It was first described in 1906[1] and was considered to have a poor prognosis. After 1945, however, a more common type of histoplasmosis was recognized which is a benign, self-limited disease and usually asymptomatic.[2,3] This type may later show pulmonary, hilar or mediastinal calcification.

The pulmonary changes in histoplasmosis may resemble those of inflammatory disease or carcinoma. The pulmonary infiltration may be of various types such as acute exudative disease, cavitary, coin lesions, calcification, etc., and may be difficult to differentiate from tuberculosis on the roentgenogram.

Histoplasmosis may be diagnosed by identification of the organism, precipitin and complement-fixation tests, and the skin test. A positive histoplasmin skin test has been found to parallel the presence of calcification in the chest x-ray in areas where histoplasmosis is endemic.

The fungus histoplasma capsulatum is present in the feces of birds and some mammals in endemic areas and is thus found in the soil.[4] The infection begins after inhalation of spores. Bronchopneumonia may occur and may be followed by caseation. The lymph nodes in the hila and mediastinum may become involved, and together with the pulmonary lesion, form the primary complex which is similar to that seen in tuberculosis. After healing of the primary complex, calcification is the usual result. It has been stated by some authors that the calcification may be characteristically large and stippled, but small calcified areas may occur and be typical of histoplasmosis.[5] Outside of the chest, calcifications may be found in the spleen secondary to hematogenous dissemination. The histoplasmin skin test usually becomes positive within 2 or 3 weeks after infection and will remain positive for an undetermined length of time.[6]

The purpose of this investigation was twofold. We determined, in North Central Indiana, the incidence of pulmonary, hilar and mediastinal calcification on chest x-ray. We also determined the incidence of routine tuberculin and histoplasmin skin test reactors in this vicinity. The results of these two groups of observations were then correlated in various ways.

Method of Study

We investigated 450 adult male and female employees of two hospitals, Memorial and Northern Indiana Children's Hospitals, in South Bend. The employees were all free of any acute illness. Ages varied from 16 to 70, but the majority of the people were in the young adult group.

X-Rays of the chest were taken and histoplasmin and tuberculin intradermal skin tests were performed on all 450 adults. The histoplasmin used was 1 to 1,000 solution, with 0.1 cc injected intradermally. The tuberculin used was the intermediate strength (P.P.D.) with 0.1 cc injected intradermally. Tests were done simultaneously on opposite arms. Skin tests were read in 48 to 72 hours. An area of induration 0.5 cm. or larger was considered as a positive test. The erythema was disregarded and the induration was measured using a caliper.

Chest x-rays were studied with regard to calcification. Calcifications were divided into three types depending on where the calcifications were found. These locations were in the lung parenchyma, the hilar regions, and a combination of pulmonary and hilar calcification. Calcifications were also studied as to size, type of calcification, location of calcification in the lungs,

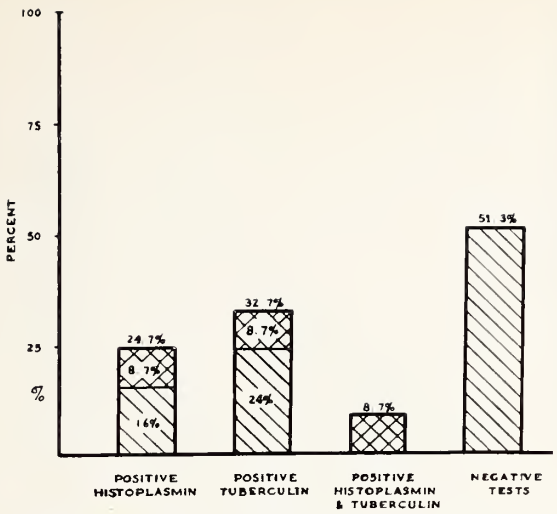


FIGURE 1
RESULTS of skin tests on four hundred and fifty adults.

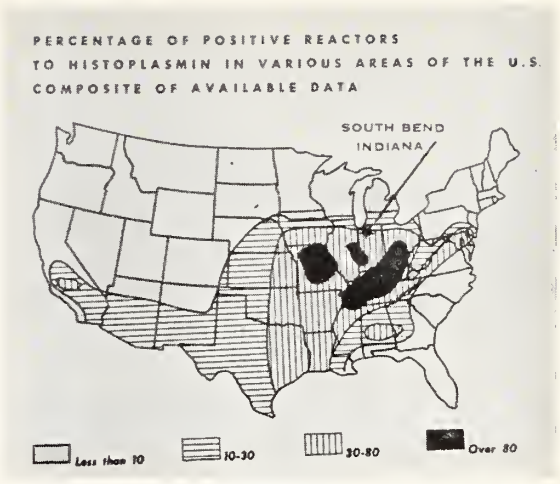


FIGURE 2
MAP of the United States showing the geographic distribution of positive reactors to Histoplasmin.

and the number of calcifications. A correlation was made of the skin tests and calcifications.

Results

The following figures demonstrate the results of these studies: In Figure 1 the results of the skin tests of the 450 adult employees is shown. It is noted that 24.7% of the 450 adults had skin tests which were positive to histoplasmosis and 32.7% were positive to tuberculosis. Both a positive histoplasmin and tuberculin skin test were found in the same individual in 8.7% of these individuals and included in the percentages given. This makes a total of 48.7% (corrected for duplicate positive tests) that had positive skin tests to either tuberculosis or histoplasmosis and 51.3% had negative tests to both of these antigens.

The percentage distribution of positive reactors to histoplasmin in various areas of the United States is shown in Figure 2. This map is a modification of one published by Dr. M. Furcolow[7] which was adopted from Dr. Manos.[8] In this map it is noted that South Bend falls into the group in which the reactors are between 10 and 30%. The results in our group show a positive histoplasmin percentage of 24.7 in North Central Indiana. This would correlate rather closely with the chart.

The incidence of chest x-ray calcification is shown in Figure 3. Approximately ⅓ (32.6%) of the 450 adults showed calcification on the chest x-ray. Of these adults with calcification, hilar calcification was found alone in 20.6%, pulmonary calcification in 37.6% and a combination of hilar and pulmonary calcification in 41.8%.

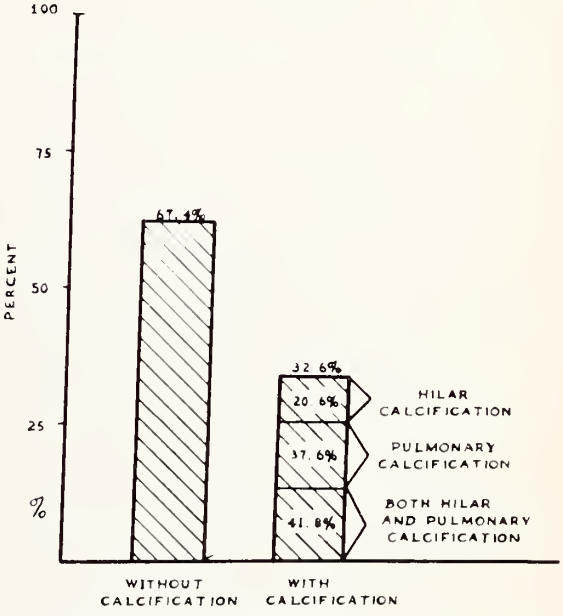


FIGURE 3
INCIDENCE of chest calcification on the roentgenograms of 450 adults.

The correlation between the skin tests and the x-ray calcification (Figure 4) was interesting in that more x-ray calcifications were associated with positive histoplasmin than with positive tuberculin skin tests, despite the fact that the incidence of a postive tuberculin test was somewhat more common in this area as was shown in Figure 1. It was found that 44.5% of the group that had chest x-ray calcification had positive histoplasmin skin tests and 38.4% had positive tuberculin skin tests. In the group with calcifica-

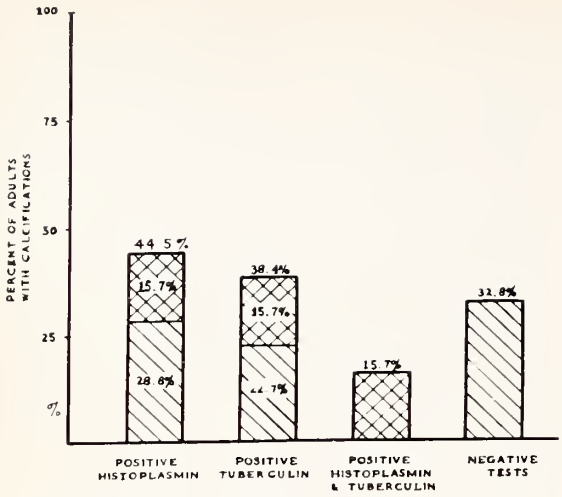


FIGURE 4

CORRELATION of skin tests with chest calcifications. Total number of adults with chest calcification was 146.

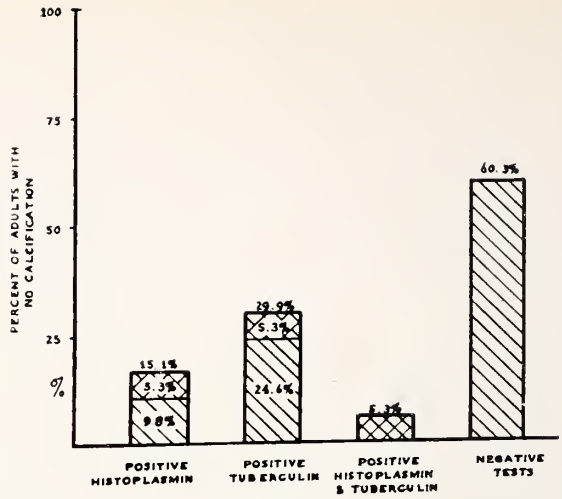


FIGURE 6

OCCURRENCE of calcification on chest roentgenograms in 111 adults with positive Histoplasmin skin test.

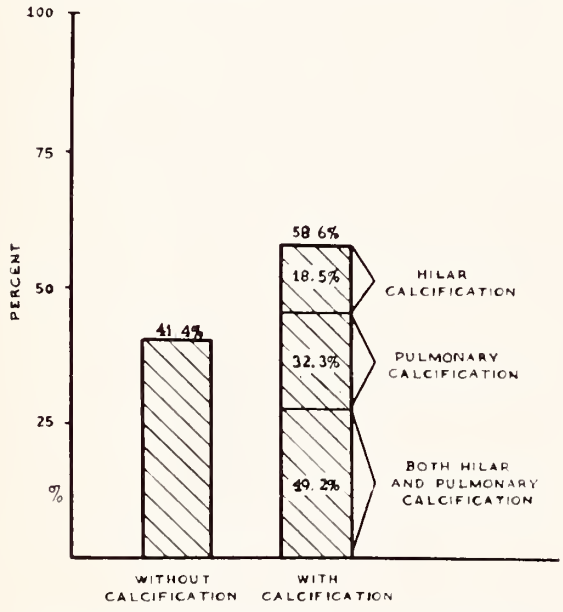


FIGURE 5

CORRELATION of results of skin tests on 304 adults who did not show calcification on roentgenograms of the chest.

tion 32.8% had a negative skin test to both antigens. It was found, therefore, that more people with chest x-ray calcification had positive histoplasmin skin tests than either negative skin tests or positive tuberculin skin tests.

With this result in mind it was thought that it would be interesting to determine the distribution of positive reactors in people who did not show x-ray calcification (Figure 5). In this group the situation is completely reversed. In the group that did not have x-ray calcifications most of these, in fact, 60.3% were negative reactors and 29.9% had positive tuberculin skin test. The smallest group (15.1%) showed a positive histoplasmin skin test.

An analysis was then made of the group who had positive histoplasmin skin tests to determine the incidence and distribution of calcification in this group. It was found that 41.4% were without calcification and 58.6% had calcification on x-ray. Figure 6 shows the distribution in the chest x-ray of the calcification in this group. The incidence roughly follows the general pattern found in Figure 3, showing the calcification in all 450 x-rays.

Again Follows Trend

In Figure 7 the same analysis was made of those people who had positive tuberculin skin tests. It is seen here, as would be expected, that the majority of this group were without x-ray calcification; 61.9% were without calcification and 38.1% had calcification. This is a reversal of the trend seen in those who had positive histoplasmin skin tests. Again the general pattern of calcification roughly followed the other two analyses.

To further show the trend, the group of individuals who had negative skin tests was further correlated with regard to the presence or absence of calcification (Figure 8). In this group even more of the negative reactors showed no calcification than in the positive reactors and a very much smaller percentage of these negative reactors had calcification—79.2% were without calcification and 20.8% had calcification. The break-

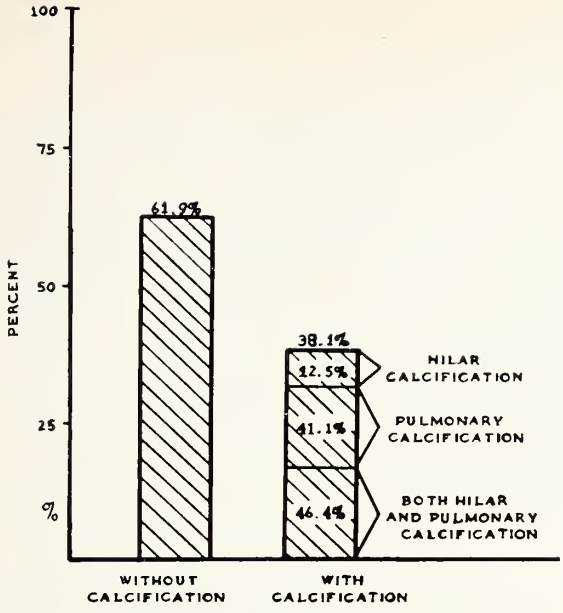


FIGURE 7

OCCURRENCE af calcificatian on chest raentgenagrams in 147 adults with positive tuberculin skin test.

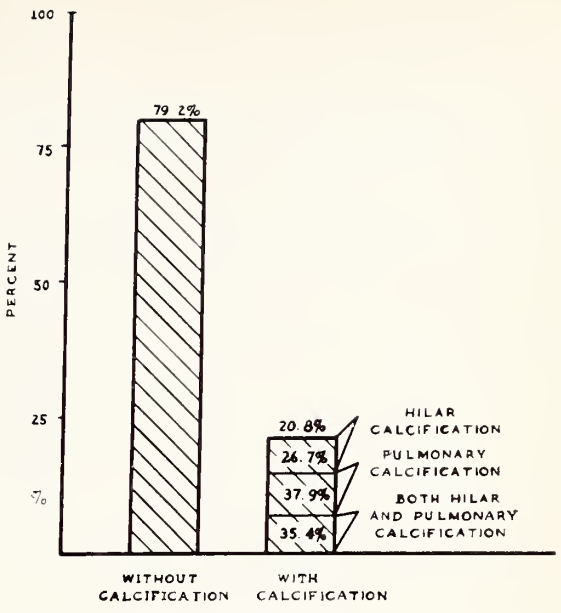


FIGURE 8

OCCURRENCE af calcification an chest raentgenograms in 231 adults with skin tests that were negative ta bath histoplasmin and tuberculin.

down of the various types of calcifications was slightly different, but not unusually so.

On analyzing the various types of calcification a clear-cut correlation could not be found that would indicate a characteristic or pathognomonic type of calcification on x-ray to indicate the histoplasmin group, the tuberculin group or the negative reactor group.

Discussion

This investigation shows that chest x-ray calcification is relatively common in North Central Indiana. Chest x-rays of about ⅓ of the adults show some type of calcification. Calcification was usually present in both the lungs and the hilar area, but did occur independently. Of the group that had chest x-ray calcification a positive histoplasmin skin test was found more frequently than a positive tuberculosis skin test which would indicate that more of the people with chest x-ray calcification had a previous histoplasmin infection than a tuberculosis infection. Conversely where no calcification was found on chest x-ray, hisoplasmin positive skin reactors were less frequent in this group than tuberculin skin reactors or negative skin reactors.

In studying the group that had a positive or negative skin test and correlating the results of these tests with x-ray calcification it was again found that there was a closer association between positive histoplasmin reactors and chest x-ray calcification than in the other groups.

As has been in the past, and too often at present some believe that calcifications seen on a chest x-ray mean that the patient has had a previous infection of tuberculosis. It is then assumed that the calcification is the end result of a healed tuberculosis infection. In Indiana, in South Bend and probably more so as one approaches the Ohio River in the south, the chances are greater and greater that the calcifications are due to healed histoplasmosis infection.[9] This is important, for generally, histoplasmosis is a much milder disease and it is unkind to frighten patients into believing they have had tuberculosis.

The statements of the doctors informing the patient of the significance of calcification and the reports sent to patients from miniature film surveys should be re-evaluated to give the proper information. Calcification only means that a probable infection had been present some time in the lung and that tests should be made to determine the type of infection.

In Indiana, most often the infection will have been due to histoplasmosis, and the further south that the patient lives in the state, the more likely this is to be true.

Conclusions

1. Calcification was found in the lungs, hila, or mediastinum in 33.6% of 450 adults.
2. In North Central Indiana 24.7% of the adults studied had a positive histoplasmin

skin test and 32.7% had a positive tuberculin skin test.

3. In North Central Indiana chest x-ray calcification is associated with a positive histoplasmin skin test more frequently than with a positive tuberculin skin test.
4. The type, location and size of the chest x-ray calcification was not found to be of diagnostic nor of etiological significance.
5. Calcifications in the chest do not necessarily mean that they are the result of tuberculosis and doctors and health departments should be careful of their interpretation to the patients.

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Based on scientific exhibits shown at the Indiana State Medical Association October 1958 and at the International Congress of Radiology at Munich, Germany, July 1959.

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REFERENCES

1. Furculow, Michael L.: Histoplasmosis. *GP* 18:117-127, Oct., 1958.
2. Christie, Amos, Peterson, J. C.: Pulmonary Calcification in Negative Reactors to Tuberculin. *Am. J. Public Health* 35:1131-1147, Nov., 1945.
3. Palmer, C. E.: Nontuberculous Pulmonary Calcification and Sensitivity to Histoplasmin, *Public Health Rep.* 60:513-520, May, 1945.
4. Furculow, Michael L.: Recent Studies on the Epidemiology of Histoplasmosis. *Ann. N. Y. Acad. Sci.* Vol. 72 (3), 127-163, April 10, 1958.
5. Baum, Gerald L., Schwarz, Jan. Pulmonary Histoplasmosis. *New Eng. J. Med.* 258:677-684, April 3, 1958.
6. Lehan, Patrick H., Furculow, Michael L.: Epidemic Histoplasmosis. *J. Chron. Dis.* 5:489-503, April, 1957.
7. Furculow, Michael L.: Histoplasmosis. *GP* October, 1958, Vol. XVIII, Pp. 117-127.
8. Manos, N. E., Ferebee, S. H., Kershchbaum, W. F.: Geographic Variation in Prevalence of Histoplasmin Sensitivity. *Dis. Chest* Vol. 29:649-668, June 1956.
9. Shively, John A., Tirman, Wallace S.: Pulmonary Calcification and Histoplasmin Sensitvity in Northern Indiana. *Journal Indiana State Medical Association* 44:951-953, Oct., 1951. ◄

The Dangers of Specificity

The flow of new and potent drugs today compels the physician to continue his postgraduate education as he never had to before. The more specific the drug—and every effort of pharmaceutical research is bent toward making drugs more pinpointed in action against particular conditions—the greater the likelihood of some unwanted side reaction . . . Much pharmaceutical advertising warns the buyer not to use the product. It's rather like an ad for a washing machine which says, "This is a good washing machine but don't put a shirt into it or you may ruin it. It does a good job on sheets but is lousy on socks."—William B. Graham, President, Baxter Laboratories.

Use of Radioactive Iodine in the Treatment of Euthyroid Patients with Congestive Failure

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Whiting

AS EARLY AS 1933, Blumgart, Levine and Berlin recognized the value of decreasing the metabolic demands on the failing heart by rendering the patient hypothyroid or myxedematous.[1] Unfortunately, at that time the only therapeutic modality at their disposal was surgical thyroidectomy which carried with it a rather high mortality in poor risk surgical cases, and was applicable to approximately only one percent of the cases with congestive failure. With the advent of the thiourea compounds, there was renewed interest in this maneuver—especially for the control of angina pectoris.[2] In 1948, Blumgart, Freedberg and Bulka first reported the beneficial effects of radioactive iodine induced hypometabolism on the course of patients with severe myocardial insufficiency.[3]

Probably less than five percent of all patients with coronary or myocardial insufficiency remain disabled despite all available therapeutic measures. It is in this group of patients that this technic holds forth some promise. To properly classify these patients, let us briefly review the applicable portion of the American Heart Association classification of heart disease as to functional capacity.

Class III—Patients with a cardiac disorder with moderate to great limitation of physical activity. (Less than ordinary physical activity causes discomfort.)

Class IV—Patients with a cardiac disorder unable to carry on any activity without discomfort.

* Department of Internal Medicine, The Whiting Clinic, Whiting, and St. Catherine Hospital, East Chicago.

To patients in these categories, radioactive iodine (I^{131}) is given orally in a dose of 20-30 millicuries as either a single or a divided dose over a two to three-week period. An occasional transitory period of hyperthyroidism occurs with the larger single dose. Metabolic symptoms resulting from the induced hypothyroidism are seldom bothersome, but can, in any event, be readily controlled with small doses of thyroid extract daily.

Treat 26 Cardiac Patients

To date, we have treated twenty-six patients with radioactive iodine for severe myocardial insufficiency of either arteriosclerotic or rheumatic etiology. Eighteeen patients were regarded as Class IV cardiac invalids and eight cases were considered Class III cardiac invalids. In all instances the patients had been digitalized, were on sodium intakes varying from 200 to 1000 mg daily, were taking thiazide derivatives and/or ammonium chloride and had received varying quantities of mercurial diuretics. In patients with arrhythmias, an attempt was made to convert the patient to a normal sinus rhythm. The results after treatment with radioactive iodine may be seen in Table I.

	Class IV	Class III
Marked improvement	4 (22%)	5 (62%)
Moderate improvement	2 (10%)	2 (25%)
No improvement or deceased	12 (68%)	1 (13%)
Total	18	8

TABLE I

The patients listed in Class III were those who continuously required longer periods of bed rest and/or more frequent mercurial diuretics. Patients listed in Class IV were essentially bed or chair patients. Improvement after radioactive iodine was assessed on subjective symptomatology, decreasing necessity for mercurials and increased locomotion.

Blumgart, Freedberg and Kurland state that of 879 patients with myocardial insufficiency and/or angina, treated with radioactive iodine, about 60% of those with myocardial insufficiency showed worthwhile improvement—17% marked, and 46% moderate improvement.[4,5] They make no differentiation as to functional capacity of the heart. From the small group of cases above, 62% of the patients showed marked improvement in the Class III category. We do not mean to imply that these patients became useful citizens, but they did achieve a reasonable degree of symptomatic relief. A typical brief case history will illustrate this point.

Case Report

A 64-year-old white female with congestive heart failure due to rheumatic valvular heart disease was first seen in May of 1958. At this time she was dyspneic and orthopneic, had a palpable liver 5 cm below the right costal margin, basilar rales, and 4+ ankle edema. The above symptoms abated on bed rest, low-salt diet, digitalization and mercurial diuretics, although her pulse remained rapid and the liver continued to be palpable 2 cm below the right costal margin. Within three weeks after discharge from the hospital, she was re-admitted with identical signs and symptoms. Upon discharge from the hospital she required mercuhydrin every third day in spite of which the signs of failure recurred within four weeks. Thirty millicuries of I^{131} was given and within eight weeks she was able to be up and about, requiring mercuhydrin about every tenth day, maintaining reasonable freedom from the symptoms of failure, until she died of a pulmonary embolus eight months later.

Summary

Induced hypothyroidism or myxedema does not alter the basic pathologic cardiac process but is another useful modality in controlling the signs and symptoms of myocardial insufficiency. It is palliative, not curative! It is urged that this adjunct be used *earlier* in the course of progressive myocardial insufficiency rather than be reserved as a heroic preterminal maneuver.

BIBLIOGRAPHY

1. Blumgart, H. L., Levine, S. A., Berlin, D. D.: Congestive Heart Failure and Angina Pectoris. The Therapeutic Effect of Thyroidectomy on Patients without Clinical or Pathological Evidence of Thyroid Toxicity. Arch. Int. Med. 1933, LI, 866.
2. Ben-Asher, S.: Further Observations on the Treatment of the Anginal Syndrome with Thiourical. *Am. Heart Journal* XXXIII, 490, 1947.
3. Blumgart, H. L., Freedberg, A. S., Bulka, R.: Treatment of Euthyroid Cardiac Patients by Producing Myxedema with RAI. *Proc. Soc. Exper. Biol. and Med.* LXVII, 190, 1948.
4. Blumgart, H. L., Freedberg, A. S., Kurland, G. S.; Hypothyroidism Produced by RAI in Treatment of Euthyroid Patients with Angina Pectoris and Congestive Heart Failure. *Circ.* I, 1105, 1950.
5. Blumgart, H. L., Freedberg, A. S., Kurland, G. S.; Treatment of Incapacitated Euthyroid Cardiac Cases with RAI. *Tr. A. Am. Physicians*, 67: 86-93, 1954.
6. Baker, Lyle A.: Personal Communication. ◄

A discussion of the tuberculosis decline in the U. S., with special reference to abandonment of sanatoria.

The William Ross Sanatorium

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THE WILLIAM ROSS SANATORIUM closed its doors for tuberculosis patients Jan. 31, 1961 after more than 30 years of operation. The reason for closing was paucity of patients (seven from Tippecanoe County and seven out-of-county patients) to a point where the cost of operation could not be justified. The Sanatorium was built and opened in 1930 through a gift of David Linn Ross in memory of his brother, William Ross, after county officials had declined approval of tax money for this purpose. The Sanatorium has had two superintendents, Dr. Walter Mytinger, who died in 1936, and the writer; 1211 patients were admitted to the Sanatorium, 120 of whom were non-tuberculous and discharged after diagnosis. There were 173 tuberculous deaths.

The Sanatorium has been a blessing and luxury to Tippecanoe and adjacent counties and was hardly appreciated until its passing. Its closing however, is in no way unique, as many similar institutions all over the United States have ceased to operate for the same reasons. Strangely enough, the famous Trudeau Sanatorium, the first sanatorium in the United States, established in 1885, was one of the first to close. One of the more recent closures, and closer to home, was the Smith Esteb Sanatorium at Richmond, Ind.

Declining Death Rate

When the writer first came to Lafayette in 1936, the death rate for tuberculosis in Indiana was 42 per 100,000. Now (1959) it is 5.8. Tippecanoe County has had an average rate (1955 through 1959) of 6.2.

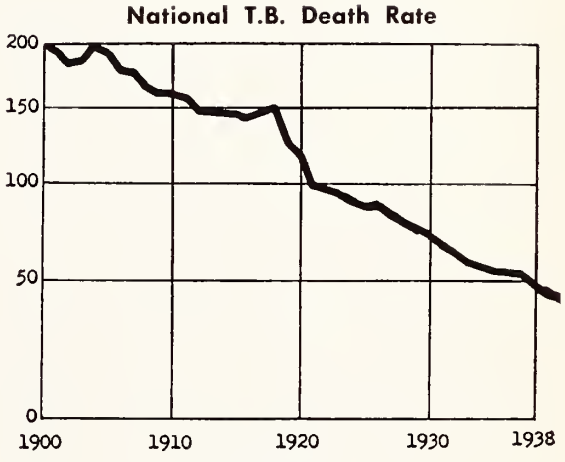


Figure 1

By looking at the curve in Figure 1 the reader will note that it requires little imagination to project the line to 1961 where the estimated national death rate will be almost exactly where it is today.

In no disease, over the years, has there been such a constant and unrelenting drive as there has been against tuberculosis, and the decline in death rate has been due to many factors, several of them obscure. These are listed, not in their order of importance, but more or less chronologically.

1. 1882 Koch discovered the tubercle bacillis.
2. 1882 Forlanini first practiced pneumothorax.
3. 1885 Trudeau established first sanatorium in United States. (Bed rest.)
4. 1895 Roentgen discovered x-ray.
5. 1904 Holboell introduced Christmas Seals in Denmark.

6. 1904 National Tuberculosis Association organized.
7. 1907 Pirquet perfected the tuberculin test. (He also coined the word allergy.)
8. 1930 (approximately) Thoracoplasty widely used as collapse therapy.
9. 1930-1940 Practical eradication of bovine tuberculosis.
10. 1933 Evarts Graham did first successful pneumonectomy which was the beginning of resectional surgery.
11. 1940's Use of mobile x-ray units for case finding. (State Board of Health and Tuberculosis Association.)
12. 1946-1952 Introduction of streptomycin, para-aminosalicylic acid and isoniazid, in the order named, now universally used in treatment.

Much of the above is now history and impossible to evaluate as to relative importance, but special attention should be given to several of the more current influences.

Current Influences

The Tuberculosis Association was one of the first if not *the* first of the fund raising organizations. Always, the first question is "what do they do with all that money?" The answer is, ask the secretary of your local association. In brief, the local associations are busy the year around with organization and execution of vast skin testing programs, mobile x-ray surveys (in conjunction with the State Board of Health), the location and disposition of every active case, follow up on inactive cases and contacts, and lesser functions. 72% of the money raised stays in the county while 12% goes to the state organization and 6% to the national. The Tuberculosis Association for the most part has remained independent of the United Fund and has not lost its identity in a welter of other organizations.

One of the recommendations of the Arden House Conference (see below) was "provision of laboratory services conveniently available to all physicians diagnosing and treating tuberculous patients." The Indiana State Board of Health has provided these services for many years. Furthermore, it provides and staffs the mobile x-ray units, keeps a registry of all reported cases of tuberculosis, provides statistics of incidence rates and death rates, inspects and advises sanatoria in an effort to improve patient care. Furthermore it is a cousin of the United States Public Health Service and the guardian of the County and City Health officers. It has many other functions.

Drug Therapy

No one can deny the efficacy of drugs in tuberculosis, as the response even in far advanced cases is often miraculous. For instance, as far as the writer knows, no case of miliary tuberculosis or tuberculous meningitis ever recovered before the use of drugs, especially isoniazid. There is no shadow of doubt that the use of drugs has had a striking effect not only on the death rates but on the relapse rate. Nevertheless, treatment is long and tedious, usually requiring bed rest and good cooperation on the part of the patient. It is by no means alone responsible for the decline of tuberculosis, as after all, the death rate dropped 83% during the 50 years immediately *before* drug treatment.

Although the technic of pulmonary resection had been achieved in 1933, and of course refined after that, it was not immediately satisfactory for the treatment of tuberculosis because of endobronchial disease, resulting in fistulae, empyemata and other complications. However, after drug therapy was begun these operations became enormously successful, to the point where older methods of collapse therapy, either by air or operation, have been practically abandoned.

There have always been patients treated at home by their physicians, and since the advent of drug therapy there have been more.

From this county there are always 3 to 6 patients in a V. A. Hospital, usually the Cold Springs Road Hospital in Indianapolis.

It is known that there are other factors, more difficult to appraise; for instance, improved housing, better nutrition, especially the increase in protein in the diet and better medical treatment, generally.

Reverse of the Coin

Indiana does not have as low a death rate as a good many other states (for instance, the Plains States), one of the reasons being the large number of migrants from Kentucky and Tennessee, states having a high incidence of tuberculosis, which Thurman Rice in 1935 so aptly named the "Cumberland Focus." Twelve percent of patients admitted to the William Ross Sanatorium were from this area. These are Lincolnesque people, (assorted sizes) some with

Elizabethan names from Cavalier families, farmers, feudists, fanatics, preachers and paupers. People originally from Great Britain, bringing tuberculosis with them to the Atlantic seaboard and from thence through the gaps to the hills. People from Tazewell, Hodgenville and a hundred other places; industrious poor people looking for a living.

Many cases are appearing that have had full chemotherapeutic and possibly surgical treatment but who are still active and contagious with organisms that are drug-resistant. Four of the seven cases remaining in this sanatorium are in this category. Recently E. A. Piszczek[2] reported 90 such cases from Cook County, Illinois, not counting Chicago. The danger from these organisms is obvious. Rich[3] believes that a "threat to long range supression of tuberculosis exists" due to the increases in drug resistant strains of tubercle bacilli. He says further than "public lethargy and over-confidence, arising from the dramatic effects of drugs active against the tubercle bacillus could destroy some of the best hopes we have for the long range future control of tuberculosis throughout the world."

A good bit of attention is now being paid to disease caused by "unclassified" organisms also designated by the adjectives, "chromogenic," "para tubercle," "atypical," "anonymous" and so torth. In general these organisms are pathogenic for man but not for the guinea pig. They may or may not be found in the sputum. They may or may not grow on artificial media and they may or may not produce skin sensitivity. Furthermore they show resistance to chemotherapy. In the past this type of disease has been uncommon. The important thing to know, and which is thought by some to be true, is whether or not these organisms are being "created" by the drugs in common use today. Xalabarder[4] who has recently reviewed this problem says, "it is not surprising that so-called atypical . . . myobacteria are found to originate from pathogenic organisms, whether spontaneously or under the influence of antimicrobical drugs."

Before leaving the subject entirely the writer would like to make note of the reports of two important conferences held recently.

Arden House Conference[5]

In December 1959 the Arden House Conference was held, the conferees consisting of 20 men and women representing some of the best talent in the United States. There were 11 recommendations. Their goal is to "sterilize that important part of the reservoir of tubercle bacilli that presently exists throughout the country in persons currently suffering from active tuberculous disease, whether presently known or unknown to public health authorities, and in selected persons who previously have had active disease and were inadequately treated." The recommended technic is to "mobilize all resources for a widespread application of the scientifically-demonstrated and medically accepted procedures of adequate therapy."

The Conference was widely publicized, and enlarged upon through distribution by the National Tuberculosis Association of two pamphlets, "Treatment is the Tool" and "Chemotherapy of Tuberculosis" with which most of the readers are now familiar. The words isolation or sanatorium did not appear in the original report.

Report of Indiana Tuberculosis Council[6]

Recently (August 1960) an excellent pamphlet was issued by the above organization called "Non Hospitalized Tuberculosis Patient Study." Many important facts are disclosed in this pamphlet, not the least of which is that in the last 8 years (1952-1959) 1477 cases of tuberculosis were first reported by death certificate, which means that these people were diagnosed and not reported, or diagnosed at autopsy. This raises the question of how many died of tuberculosis that were never diagnosed by any means.

Conclusion

The writer has briefly discussed the principal causes of the decline in tuberculosis with special reference to the abandonment of sanatoria and the William Ross Sanatorium in particular. Tuberculosis is a fascinating, recondite disease constantly surprising one with it's behavior and manifestations. With an estimated 20% of the population of this country infected with the tubercle bacillus, it seems unlikely that the disease will be wiped out in one fell stroke or by any blitz methods, but, to use a cliché, by attrition.

REFERENCES

1. *Amer. Rev. of Tuberc.*, August, 1939.
2. E. A. Piszczek, *Chicago Tribune*, January 16, 1961.
3. Arnold Rich, *Amer. Rev. of Resp. Dis.*, October 1960.
4. C. Xalabarder, *Amer. Rev. of Resp. Dis.*
5. Arden House Conference, *Amer. Rev. of Resp. Dis.*, April 1960.
6. Report of Indiana Tuberculosis Council, 1960. ◄



The Case of the Vexed Vixen

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TOM DIENER was the animal caretaker at the physiology laboratories of one of our great, Midwestern medical schools. He blended into the background so well that countless succeeding generations of medical students remained unaware of his existence. His assiduous services hardly ever intruded into their consciousness: Tom Diener was the living appendage of the department which took care of the living creatures, housed up on the sixth floor of the building. He was the *someone* wheeling the animals into the operating rooms and giving them the necessary aftercare.

It was a literal accident that I became well acquainted with Tom Diener. One Saturday, in the late thirties, I had occasion to treat him as a patient. While cleaning some cages, Tom lacerated the web of his hand: an artery was torn and the blood gushed in profusion. In the emergency, I had stopped the hemorrhage and sewed the torn flesh. After cleansing, debriding and suturing the untidy mess, I gave Tom an injection of the standard tetanus antitoxin; then I escorted him up to his quarters on the animal floor.

I almost gawked at the first sight of that lovely little apartment. It was tucked away in such an unlikely spot; one could hardly even suspect its existence. With kindled curiosity, I inspected the hidden bachelor quarters. They were immaculately clean, artistically furnished and tastefully decorated with such knickknacks as vases filled with fresh flowers and personally carved pieces of driftwood gathered from the dunes lining the shores of Lake Michigan. Apparently, Tom Diener was a bit of an artist!

In a corner of the kitchenette, an animal was leashed to an angle of the stove. I thought it a dog until it sprang up facing us: the black feet, the red back, the white tipped, bushy tail and the unmistakable large, triangular ears labelled it FOX, vulpes fulva. The yapping, short scream, emitted at sight of us, further identified her as vixen, the female of the species.

Almost apologetically, Tom remarked, "I picked her up near my cottage last Sunday; a large mongrel dog had cornered her and was chewing her up; I stunned him with a heavy stick I was carrying. I carried her away; that dog was terribly vicious."

Wryly, Tom continued, "I just could not leave her there so I brought her here. I've nursed her a bit; she is almost well; we have become friends; I really don't know what to do

with her." Indeed, this denizen of the wild was almost purring as Tom rubbed reflectively behind her ears!

"Well, anyway, Tom! Have you ever had toxoid for lock-jaw? No? Well, we'll see that you *and* Mrs. Fox get them."

As we sat there chatting, the faceless fixture continued to become individualized. Tom Diener was a fairly young man living in the Balkans during the wars that preceded the First World War. The formidable head of our department had been in Macedonia on a preventative health mission. In those halcyon days, the world was still sensitive to such scourges as cholera (sewage in drinking water), typhus (louse borne), bubonic plague (rat flea vector) and other naturally propagated diseases. Today, these epidemics are studied with scientific detachment as a small part of the Germ Warfare section of the biochemical laboratories at such Army installations as Fort Detrick.

Arrived as Part of Baggage

It appeared that Tom Diener had almost died with one of these unsanitary afflictions; our professor had helped cure him. In gratitude, Tom had gone to work for the mission; he became a sort of general factotum attached to these strange Americans. In time, he had come to the States as part of the baggage. In those far-off, innocent, pre-quota and pre-passport days it was not too difficult for our chief to get him waved in as just another immigrant. The unpronounceable, heathenish name was abbreviated by the eminent scientist into Tom Diener: it was short and it also stated his occupation.

My chat with Tom was a welcome close to an otherwise very drab day. The wounds on his hand healed readily. "Lisa," the vixen, became a well-known tenant of our laboratory. One of our biology professors paraded around with a pet wallaby on a leash, another had a raccoon—no one demured at just a little fox.

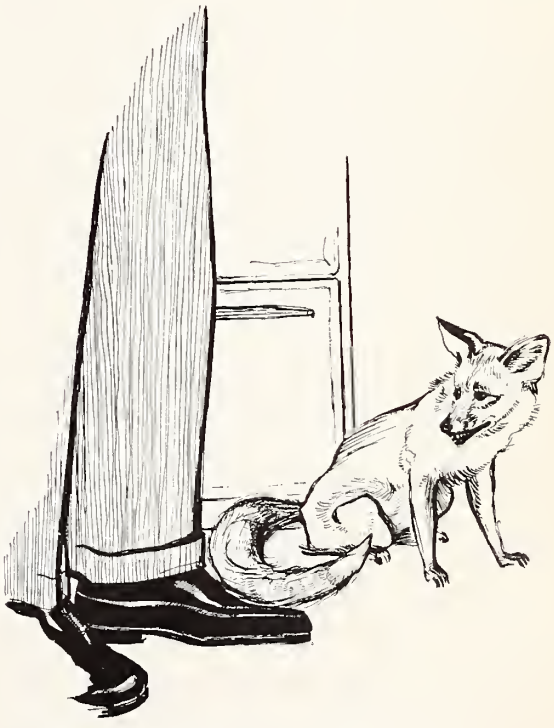
Not long thereafter, I was honored by a rather shy invitation to visit Tom Diener at his lakeside cottage. It was a modest but charming retreat, well screened by dunes, bushes and trees from his neighbors. Here also was the meticulous old bachelor's stamp: the neatness, more carvings, the few well chosen books! It was just lovely; it delineated further a *Person*: frustrations and accomplishments, a past history and hopes for the future . . .

Over the winter we had more than one chat on other than laboratory business topics. One day, he even confided in me his hope of retiring that coming summer; his pension and social security would carry him, "I'll settle in my cottage and look at the lake; that little vixen and I will go strolling in the dunes; at times, I'll just sit and carve away at the driftwood; maybe, I'll fashion something really good . . ."

In the closing week of school, at the very end of June, the pace of things became really hectic. Hitler had blitzed France; war clouds were on the horizon; my research was going poorly and, anyway, seemed trivial compared with the military call-up I was expecting momentarily. I was hot, tired, worried and exasperatingly short tempered. A couple of my prize animals were dying that morning from what seemed to be sheer neglect. I called Tom Diener who did not answer the phone in his quarters; both his assistants were off that day. Goaded into anger, I went looking for him.

Almost at Last Gasp

The door of the apartment was ajar; I entered. The usually neat rooms were in messy disarray; with mounting astonishment, I went back to the kitchen. There, sitting in a corner, squatting on the floor, was Tom; cradled in his



An animal was leashed to an angle of the stove . . .



He was attempting to force some medicine . . . past the vixen's clenched teeth . . ."

lap was the vixen. The little creature was obviously very ill: almost at its last gasp. The fur was ruffled; her eyes were rolling and glittering feverishly; she was in partial hyper-extension and quivering as if in pain. A low moaning whine was being uttered sporadically and saliva was drooling onto Tom's lap from her parted lips. Tom had not seemed to have heard my coming; he had not as much as looked up; most tenderly, he was attempting to force some medicine from a spoon past the vixen's clenched teeth. Before my very eyes, the agitated animal half growled, half whined; her snout contorted into a partial snarl and she almost snapped at her beloved master nipping the very tip of his nose.

The *VEXED VIXEN* then was jerked into an opisthotonic spasm so that the muzzle arched backward until it almost touched the root of the tail: All the muscles—and particularly the respiratory—were held in a maximal fixation; the dreadful mask of *rizor sardonicus* froze the poor creature in its terrifying vise. But there was much more: The violent response to even the sight of fluids; the cessation of breathing for a good minute followed by that shuddering gasp??? This paralyzing fear of water — this *HYDROPHOBIA??* Only twice before had I seen this (and then in humans) but this horrifying sight had etched itself most indelibly in my memory. *This* was *RABIES,* the one disease from which there is no recovery.*

An apprehensive shiver ran up my spine as I focused on the full hell of the mise en scène. As a doctor trained in municipal hospitals, I had become inured to seeing suffering and sorrow, the morbid and the macabre. My roommate at the Cook County Hospital had taken only three hours to perish of an acute, hemorrhagic meningitis (Waterhouse - Friderichsen Syndrome). Myself, I had barely squeaked through alive from a septicemia that followed a nick on my finger while performing an autopsy: in the pre-antibiotic era of the twenties the streptococci used to claim some 98% of the victims whose blood they invaded. But *THIS* I was seeing only for the third time. The very sight of the loathsome, dreadful abhorrence made me want to bolt in panic!**

Didn't Mean to Bite

Suppressing the cowardly reflexes, I called to Tom—loudly. He looked up at me with lack-luster eyes; his dulled gaze barely focused on me. In a husky voice, he croaked, "She won't take any medicine I try to give her. She's been inoculated for lock-jaw, distemper and just about everything else but something sure is killing her: she won't eat or drink—and she did not mean to bite me!"

The voice trailed off as Tom kept rocking himself back and forth. As I compelled myself to take a closer look, I could see that he was in

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* For further reading, one can recommend:

Top's *Communicable and Infectious Disease* 4th Ed. chapter 63.

Boyd's *Textbook of Pathology* 7th Ed. p. 345 and 1182.

Cecil's *Textbook of Medicine* 10th Ed. p. 50.

Also, *Rabies* by F. B. Peck & C. N. Christensen Marion County General Hosp., Indianapolis, Ind.

K. F. Meyer's The Role of Animals in Diseases of Human Beings *Modern Medicine* Oct. 2, 1961 pp. 135-174.

** Some continuing studies are proving that the *BAT* is the only warm blooded animal capable of living in symbiosis with the rabies virus. Apparently healthy bats drool in their saliva and droppings the lethal spherical agents of death. The unsung heroes who have repeatedly risked their lives in tracking this ferine reservoir to its loathsome lair in the fetid underground caves teeming with untold millions of bats—these modest yet utterly fearless men deserve, at the very least, Congressional Medals of Honor!!

a half delirium himself. "How long since you've been to see the animals, Tom?"

"I've been nursing Lisenka for a week; the last couple days, I've been too punk to get out of these rooms at all."

Well: Tom still was partially rational—but, for how much longer? I went to the outside telephone and called the municipal contagious diseases hospital. Then, I called the acting head of the department; I was grimly and briefly to the point; he came over within five minutes.

Just as we both re-entered that kitchen, we could hear the agonizing half yelp, half strangled growl of the dying animal. She stiffened into that indescribable tetanic spasm so diagnostic of hydrophobia; her respirations ceased and she began to relax gradually in death: the vixen was vexed no longer. Tom continued holding, oblivious of the fact of her end. The ambulance came minutes later.

The gowned, gloved and masked men put the dead animal into a special container pail. Tom hardly reacted as he was placed on a stretcher and carried out. The decontamination squad stayed behind for its unenviable task of cleansing the apartment and making it sanitary again.

Only too well, *NOW* I remembered the recital of the dog that had cornered the poor fox the preceding fall; *of course,* he must have been rabid: How puerile my contrition at having failed to correlate the obvious facts: How could I have had such a diagnostic hiatus? Why had I failed to use the Pasteur treatment? How ghastly the consequences of my careless absent mindedness? The phenol killed virus vaccine produced by Semple would have protected everyone amply. The active immunization with attenuated live rabies vaccine grown on chicken embryos was not available at the time as Flurry did not publish his work until 1949. The prolonged incubation period was unusual but then

. . . .

Take Pasteur Treatment?

In utter frustration, I reproached myself even as I undressed in the laboratory and scrubbed myself with formaldehyde. Almost hating myself, I reflected on the dreadful drama as — a little later — I lay in a tubful of almost boiling water washing off any stray viral particles. I had not touched a thing in that apartment but still—!! Should I take the Pasteur treatment? I shuddered at all the lovely possibilities of the occasional demyelizing, allergic encephalitis that can be the consequence of the injection of all that foreign cerebral tissue. The very word, rabies, was like a searing scourge to a lyssophobe like myself. The Semple vaccine seemed a safer out but I could not say that I had much stomach for it either.

The very next day, we got the report on the autopsy of the poor fox. The Negri bodies were abundant not only in the hippocampus but also the medulla and cerebellum; the swollen salivary glands swarmed with globular 125 micromillimeter viral particles that had been strained through the Seitz filters and identified. There could be no gainsaying that the poor little vixen had died of the "furious" type of hydrophobia.

Thank goodness, it was not my duty to make the decision sacrificing all the animals in the laboratory, Semple vaccine or no Semple vaccine. The massive job of decontaminating and scrubbing down the entire building was to consume a good part of the summer vacation. I did deem it a sort of penance (there could be no atonement) on my part to force myself to go and see poor Tom Diener in his quarantined room at the hospital. The paralytic form of the disease, "dumb rabies," works with inexorable lethal swiftness. The poor chap was fed by vein and gavage; he was sedated maximally for the two days he did linger; he was in a merciful stupor unaware of being dead even while still alive. The cremation was strictly private; it followed a non-sectarian religious service.

Then the departmental secretary and I donned sterile clothing, rubber gloves and masks and went rummaging through Tom Diener's belongings that had been sequestered into special containers prior to incineration. We did find a brief note directing that all his estate be turned over to the Department of the University. It was witnessed by the signature of the lately deceased professor who had been the prime cause of Tom having come to America in the first place. As Tom had no known relatives, there was no one to contest this matter.

It was also our duty to go out to the Dunes and look over the cottage. That was the place Diener had planned as his retreat; it was the focal point of his retirement plans. We found the place in immaculate condition. The runway

for Lisa, the little vixen, was waiting; the grocery shelves had been amply stocked; in the large living room there were pieces of driftwood lovingly selected by Tom for his leisure hour whittling: his knives were neatly stacked on the shelf alongside his workbench. As in Field's immortal poem, The Toy Soldier, the materials were awaiting the sculptor . . . .

In the mail-box there was a Sears catalogue and two official envelopes; in them were the pension and Social Security checks: the bits of paper that had symbolized to Tom Diener the security of a well-earned retirement.

The July sun blazed in a cloudless sky; there was the whisper of a gentle wind sighing lazily through the trees; the lapping waves gave rhythmic emphasis to the serene peace of the virginal dunes . . . . ◄

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*A Case History**

U. S., a 185-year-old male, presented himself for treatment. He wore a cutaway coat, silk hat, striped trousers. His pockets were empty. He looked SICK!

Born by Caesarian section in 1776, he rapidly grew to be a giant among men. Other early history uneventful. In 1914 he was treated with a small dose of socialism and One-Worldism (Caution: habit forming). First symptoms began to appear. In ever-increasing doses, he was treated with the socialistic medication, especially since 1933. The patient went from bad to worse.

Examination revealed that the patient had two eyes, but could not see; two ears, but could not hear; a nose, but could not smell. Throat and vocal cords appeared normal but when patient attempted to say the word "Cuba" or "Laos" he choked, and was silent. Chest examination revealed enlarged heart and emphysema. Abdominal examination revealed absence of large and small intestine.

Laboratory examination revealed patient to be anemic. Motor-neurological examination revealed marked tendency for patient to move to the left, with corresponding movement to the right seemingly paralyzed. Electro-cephalagic examination revealed a vacuum with very fuzzy thought originating therefrom.

Acute ismitis, complicated by fractured constitution.

Recommended Treatment

Massive doses of individualism; self-determination; free enterprise; free market; and above all, an uplifting of morals, honesty and integrity. A return to the common sense health rules of the Constitution.

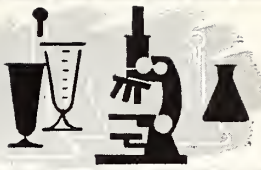
CAUTION: This patient extremely allergic to deficit financing, bureaucracy, give-aways, and throw-aways; particularly allergic to the isms of communism and socialism.

Prognosis: Given the recommended treatment immediately, the patient will recover and regain his healthful status as a giant among men. Without above recommended treatment, his early demise is predicted.

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*Based on a speech by Dr. Curtin W. Caine, Jackson, Miss.; member of Board of Directors, Association of American Physicians and Surgeons, before the 7th National Constitution Day convention of We, The People; September 16, 1961, Chicago, Ill. Reported by Dave Schreiner, 1016 Morton Street, Anderson, Indiana.

Path-finder
PUBLISHED UNDER THE AUSPICES OF THE INDIANA ASSOCIATION OF PATHOLOGISTS



Repetition—Often the Price of Accuracy

JUST AS A SURGEON in many cases must examine an abdomen several times before deciding about laparotomy, so in some instances must certain laboratory tests be repeated more than once before valid conclusions may be drawn. In this era of audit committees and hospital inspections, insufficient physical examinations are a relative rarity. Unfortunately, for reasons of varying validity, a laboratory test is often not repeated sufficiently and thereby yields erroneous, inconclusive, or no information. In the succeeding listing will be found laboratory procedures which often must be subject to multiple repetitions before diagnostic or prognostic conclusions of either a positive or negative nature may be made with reasonable confidence. In some instances, the optimum number of repetitions has been well established by adequate studies. In others, the number is a rather empirical one set by custom or practicality. In still others, no definite number is mentioned; and the correct number is, like the dosage of some drugs, "enough."

I. Hematology.

A. "L. E." cell preparations—at least three preparations on different days and not during steriod therapy are essential. These should be repeated at a later date if a definite diagnosis has not been made.

B. Blood smears—these may need several repetitions before a diagnosis such as leukemia, malaria, or infectious mononucleosis can be made or ruled out.

C. Bone marrow aspiration and/or biopsy—two or more of these may be needed (often with intervals of several weeks to months) when considering diagnoses such as leukemia, lymphoma, myeloid metaplasia, metastatic malignancy and multiple myeloma. This is especially true when hypoplastic or aplastic anemia is considered. An open biopsy should be carried out before the latter diagnoses are finally made.

II. Biochemistry.

A. Porphobilinogen, Serotonin, Catecholamines, Vanillin-mandelic acid — All may be excreted intermittently by patients with the disease in question and should be repeated several times preferably during a typical clinical episode.

B. Electrolytes

1. Na^+, K^+, CO_2, Cl^-, pH — These are often ordered insufficiently to follow course of treatment, or if the first battery is normal are not reordered even though the clinical condition is not significantly improved. They should almost always be ordered as a battery as they can vary independently so that any single value cannot be estimated from others.

2. Ca^{++}, $PO_4^{\equiv}$ — Small deviations from normal may be significant in diagnosis of parathyroid disease. Consequently, several values to determine an accurate mean are necessary.

III. Microbiology.

A. Blood cultures—numerous negative blood cultures are necessary to rule out subacute bacterial endocarditis. One practical method is to order six at 4-hour intervals around the clock before starting treatments.

B. Cultures for acid-fast bacilli or fungi—at least three are necessary from sputum for conclusiveness. Multiple cultures desirable from any source.

C. Stools for ova and parasites—at least three are necessary. May need purge in some instances.

IV. **Cytologic specimens**—at least three specimens and preferably more should be studied when attempting to diagnose lung cancer or gastric carcinoma.

V. Serology.

A. Heterophil agglutination—this test may need repetition at least twice at intervals of 5-7 days in order to catch the titer in a diagnostic range.

B. Agglutination and complement fixation tests for acute febrile diseases, e.g., typhoid, brucellosis, should be repeated at least twice as the change in titer is more significant than the level of titer.

VI. **Histopathology**—biopsies, especially those to establish systemic disease, e.g., skeletal muscle for polyarteritis, lymph node for lymphoma, may often be inconclusive on the first attempt for many reasons. This should not deter repetitions.

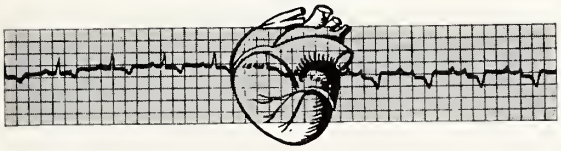
When the clinical pathologist recommends multiple repetitions of these tests, he is frequently met with three answers or attitudes containing varying portions of logic and all too often frustrating of response. The most common is basically economic and indicates that the patient has limited funds and/or time in which to pursue "such an idealistic diagnostic program." The second is quasi-legalistic and states that the possibility of the diagnosis in question is remote, and the lab test ordered was done "for the sake of the record." The third of these answers and the least amenable to rebuttal is often not voiced directly but strongly implied. This takes the position that if several repetitions are necessary, then one can not place much reliance in the test *per se* or in its performance by the laboratory in question.

The first two answers are rather easily disposed of, even while recognizing that time and economics frequently must have some bearing on the handling of a given case and conceding that satisfaction of the requirements of the various hospital committees is desirable. If time and money are to be well spent, then something of value must be realized from their expenditure. It follows that if an insufficient number of a given laboratory test is performed for the making of a reliable interpretation, then all the time and money so spent is wasted, and the patient would be better off had no such test been performed. Similarly, the intent of a medical record committee is that the charts be adequate to justify the diagnosis, prognosis and treatment of a case. Once again if the number of repetitions of a key test is inadequate, then the value of the record is not increased at all.

But there is much truth in the last statement concerning the reliability of the tests. Just as a multiplicity of acceptable treatments for a disease usually indicates that none is entirely satisfactory, so the need for many repetitions of a laboratory procedure usually indicates that the test in question is far from ideal either for technical reasons or because the substance tested for may fluctuate in detectability. Nevertheless, these are usually the best objective diagnostic "tools" now available and must be employed as any tools, in the proper way to be useful.

In the end, the clinician must decide whether a disease is a significant possibility in his differential diagnosis. If it is not, then the possibility should be explored no farther. If it is, then the possibility must be doggedly pursued no matter how much repetition is necessary until the diagnostic riddle is solved. ◄

Electrocardiogram
of the month



Presented as a regular feature of The JOURNAL, Electrocardiogram of the Month is a series of short talks on cardiovascular diagnosis and treatment, edited by the staff of the Robert M. Moore Heart Clinic of the Marion County General Hospital, Indianapolis.

Repetitive Supraventricular Arrhythmias

*CHARLES FISCH, M.D.**
Indianapolis

THE PATIENT whose EKG is reported in Figure 1 was a 79-year-old male with atherosclerotic coronary disease manifested by congestive heart failure. At the time this tracing was taken he was being treated with low sodium diet, diuretics, potassium and digitoxin.

Figure 1 shows representative sections taken from leads I, AVF, V-3 and V-6. Normal sino-atrial (S-A) rhythm is represented by last five complexes of lead AVF, first three and sixth complex of lead V-6. Most likely third QRS in AVF is preceded by a P wave and represents a normal S-A beat. Remainder of AVF, V-6 and the entire lead I displays irregularly spaced QRS complexes with a rate varying from 210 in lead V-6 to 220 in lead I. These changes strongly suggest the presence of atrial fibrillation.

Lead V-3 shows an unequivocal paroxysmal atrial tachycardia (PAT) with a rate of 240. The basic artrio-ventricular response is 2:1. The exception to the basic rhythm are the two premature P waves, marked with an arrow, which disturb the dominant PAT rhythm. While the P-P (measured from peak of P) interval of the PAT is .24 seconds the distance of the premature P waves from the preceding "dominant" P wave is .16 seconds. Their respective P-R intervals are 0.08 and 0.04 respectively. A compensatory pause follows each of the two atrial premature beats.

This cardiogram exemplifies the close relationship between various supraventricular arrhythmias with normal S-A rhythm, atrial premature beats and PAT and atrial fibrillation seen in one record. One could postulate, with some degree of assurance, that the premature atrial impulse having stimulated the atria during varying stages of refractoriness caused transitory atrial fibrillation.

* From the Robert M. Moore Heart Clinic, Marion County General Hospital and the Department of Medicine, Indiana University School of Medicine, Indianapolis, Indiana.

Supported by the Herman C. Krannert Fund of the Indiana Heart Association and the Indiana State Board of Health, Indianapolis, Indiana.

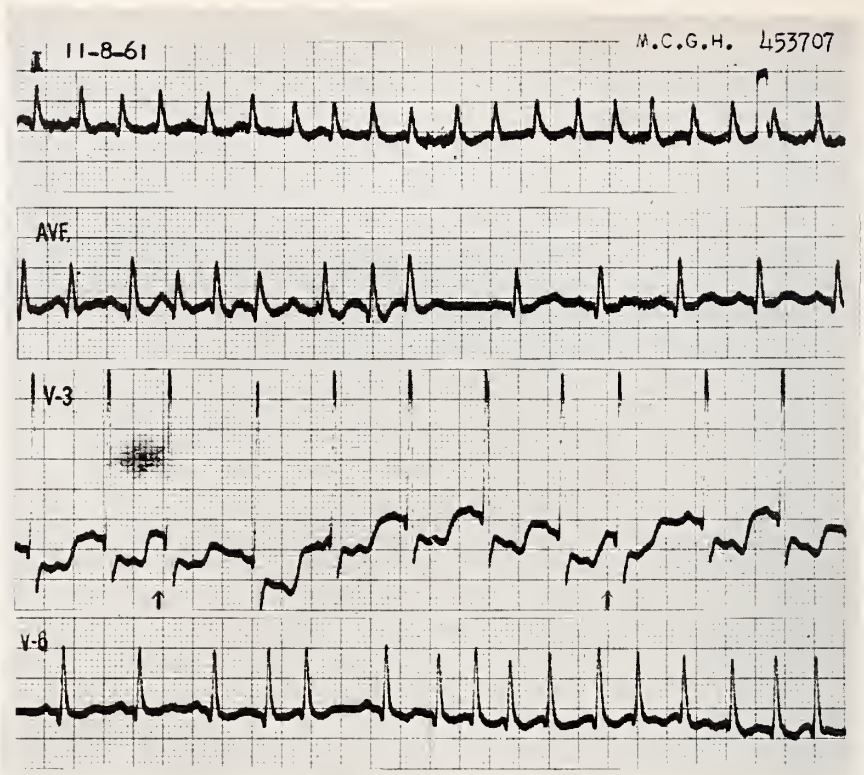


Figure 1

Musings of a Drug Manufacturer

Despite all the seeming inefficiencies of free competition, I would rather be deluged with more medicinal preparations than I know how to use than be forced to sit idle at the bedside of a patient doing nothing because there are not enough drugs to save lives or, at the very least, to bring comfort to my patients. I would rather be accused of trying too hard to market my useful products than to default on marketing and, thus, to lose sales and thereby increase costs. I would rather be stacked up over an airfield for two hours in a 1961 jet than to have the sky all to myself in something like the Wright Brothers' original flying machine. I prefer to suffer the pangs of perplexity in having countless alternatives in the purchase of a new car than to have no choice at all.—Theodore G. Klumpp, M.D., president, Winthrop Laboratories, in *New York Medicine*.

LABORATORY MEDICINE

Published periodically as a review of clinical laboratory procedures suitable for laboratories with minimal equipment.

Reticulocyte Count

*A. WENDELL MUSSER, M.D.**

ANEMIA AS A CLINICAL entity is extremely common in the practice of medicine. Anemia may be defined as a reduction in the circulation of either hemoglobin or erythrocytes. The mechanisms responsible for anemia are quite varied and include diminished erythropoiesis, blood loss, and increased hemolysis. Diminished erythropoiesis occurs as a result of either a nutritional deficiency or as a result of bone marrow failure. Faulty diet as a cause of nutritional deficiency is rather uncommon in our country, with the possible exception of older age groups. Nutritional iron deficiency anemia is encountered in pregnancy due to the excessive demands for iron and other building substances. Occasionally, one encounters a deficiency anemia brought about by defective absorption of iron, vitamin B_{12}, and other food substances as a result of primary gastro-intestinal disease or extirpative surgical procedures.

Chemicals, drugs, chronic diseases, and ionizing radiation can depress the bone marrow and thus interfere with erythropoiesis. Uncommonly, the bone marrow is unresponsive and is hypoplastic for causes unknown.

In considering increased hemolysis as a cause of anemia, one simplifies the picture slightly by classifying etiologic circumstances as intracorpuscular versus extracorpuscular defects. Hereditary spherocytosis, thalassemia, paroxysmal nocturnal hemoglobinuria, and the fascinating hemoglobinopathies are examples of the intracorpuscular defects. The extracorpuscular defects include such entities as auto-immune and iso-immune hemolytic diseases, paroxysmal cold hemoglobinuria, and anemia, secondary to infectious agents, chemical agents, physical agents, and vegetable poisons.

In the maturation of the erythrocyte from the erythroblast to the mature erythrocyte, the nucleus with its chromatin mass is lost. The metarubricyte loses its nucleus and the resulting cell is an immature erythrocyte which, stained with supravital stains, reveals a network of filaments and granules. These immature erythrocytes are the reticulocytes. The reticulocyte count is employed as a measure of the physiological activity of the bone marrow. This laboratory procedure is useful in diagnosis of anemias; however, the importance of the reticulocyte count is more evident in following a patient's response to therapy.

Iron deficiency anemia when treated by iron salts responds with reticulocytosis during the first week. The magnitude of the reticulocytosis depends on the initial hemoglobin level and not on the level of red blood corpuscles. The usual response is in the range of 4-10%; unless complicating factors are present, the reticulocytosis is followed by the return of the hemoglobin and red blood corpuscles to normal levels within a period of six to ten weeks. After the occurrence of acute hemorrhage reticulocytosis begins in two to three days and soon reaches

* Formerly at Indiana University Medical Center, now at Womack Army Hospital, Fort Bragg, North Carolina.

a peak in from four to seven days. Reticulocyte counts as high as 12-14% often follow an acute hemorrhage in those cases in which the hemorrhage is severe enough to reduce the red blood count to about 3 million per cubic millimeter. Extravasation of hemorrhage into tissues of the body cavities is often followed by a rise in the reticulocyte count as well as the serum bilirubin.

The reticulocyte count is of great value in following patients with pernicious anemia during treatment. The highest response is usually approximately seven days after institution of therapy. The hemoglobin and the red blood cell count, which lags behind the reticulocytosis, catches up at approximately 4 to 5 weeks. The laboratory procedure is therefore of great use in the early days of therapy of the patient suffering from pernicious anemia.

The normal value for reticulocytes is usually within the range of 0.1% to 2%, with occasional normal values as high as 4%. An increased level usually denotes an increased response of the bone marrow. A normal or decreased level in the presence of anemia is usually associated with inadequate regeneration of the bone marrow.

METHOD

Reagents:

1. Brilliant Cresyl Blue:
   1.3 gm. sodium oxalate
   1.0 gm. brilliant cresyl blue
   100 ml. distilled water
   Let stand a few days and filter.
   Store in dark bottle.

Use either fresh anticoagulated (heparin or oxalate) venous blood or blood from finger puncture. On a clear dry slide, place a small drop of blood and an equal amount of brilliant cresyl blue staining solution. Mix with the corner of another slide and allow to stand two or three minutes. Mix again and make a fairly thin smear. When the smear is dry, counterstain with Wright's stain. Count the number of reticulated red cells per thousand red cells and express as the number of reticulated cells per 100 red cells (percent).

REFERENCES

Issacs, Raphael: Standards for Maximum Reticulocyte Percentage After Intramuscular Liver Therapy in Pernicious Anemia. *Amer. J. of the Med. Sci.* 196:718-719, 1938.

Grant, W. C., Root, W. S.: Fundamental Stimulus for Erythropoiesis. *Physiol. Reviews,* 32:449-498, 1952.

Osgood, E. E., Wilhelm, M. M.: Reticulocytes. *J. of Lab. and Cl. Med.* 19:1129-1135, 1934.

Plum, C. M.: On the Reticulocytes, Their Occurrence and Development *Acta Hematologica* 2:317-348, 1949.

Leavell, B. S., Thorup, O. A.: Fundamentals of Clinical Hematology, 1st Edition, W. B. Saunders Co., Philadelphia, 1960. ◄

Drug Contributions to Health

During the past 20 years domestic drug makers have produced more remedies for more ills than at any other time. Since 1945 the death rate from eight major diseases including diphtheria, whooping cough and pneumonia, has been cut in half. Tranquilizers, pills for diabetics, oral polio vaccines have moved with record-breaking speed from laboratory to drug store. In the process the industry undoubtedly has made money . . . (even though) the risks, technological and competitive alike, tend to match the rewards. It has also made an unprecedented, if scantily recognized, contribution to U. S. productivity and health.

—*Barron's Weekly.*

The Journal of the Indiana State Medical Association

MEDICAL ESSAY CONTEST

for

Interns and Residents of Indiana Hospitals

During the intern and resident year of 1961-62 The Journal is sponsoring a medical essay contest open to interns and residents of hospitals in Indiana. The subject matter will be limited to clinical experience observed primarily in the teaching hospital of the author. Presentations may contain up to 4,000 words and preferably should be illustrated with clinical pictures, graphs or tables.

A first prize of $100.00, a second price of $75.00 and a third prize of $50.00 will be awarded. All entries are eligible for consideration for publication in The Journal.

Manuscripts will be judged by a prize award committee selected by the Editorial Board of The Journal and by the Dean, Indiana University School of Medicine.

Manuscripts should be prepared in accordance with the specifications outlined on the masthead page of The Journal.

Entries must be submitted prior to May 1, 1962.

The manuscript itself is to be identified only by the title. The author's name must not appear in the manuscript. Instead, a special title page bearing the title and the author's name and address should accompany the paper. Mail entries to Mr. James A. Waggener, 1021 Hume Mansur Bldg., Indianapolis 4.

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Devoted to the interests of the medical profession of Indiana

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Better Times Ahead for M. D. Ratio

FOR SOME TIME now the estimate has been that the United States must provide itself with about 20 new medical schools *or* increase the graduating classes in existing schools in the same proportion by the early 1970's in order to maintain the present ratio of doctors to population.

This estimate does not involve any judgment as to how many doctors are needed per 10,000 population. It is not concerned with the number of physicians nor the adequacy of this figure. It is a simple calculation which is based on expected increase in population. Its purpose is to increase graduation of physicians at the same rate as the population. For this reason it is difficult to find fault with the move for more medical schools unless one feels that we have too many doctors now.

Some increase in enrollment in existing schools is possible and is actually in process at the present time. However, this method of graduating more doctors has its limitations and cannot be depended upon for the complete solution to the problem. Actually new medical schools are and will be needed.

New medical schools are expensive; the original cost runs into millions and millions of dollars. And, as everyone knows, the original cost is not the only large item. It costs more per student to operate a medical school than it does for any other type of school.

The 1960-61 annual report of the AMA Council on Medical Education and Hospitals contains good news on this important question and on other pertinent matters in medical education.

The report reveals:

1. Plans for five new medical schools.
2. An increase in enrollment in medical schools.
3. Evidence that the quality of medical students has remained relatively constant since 1954.
4. Indications for a future increase in medical school applicants.
5. Stepped-up efforts to attract students into the medical profession.
6. A trend toward relaxation of geographical restrictions on applicants to publicly-owned medical schools.

7. An increase in full-time faculty members in medical schools.

The Council reports that new medical schools are assured by five universities — Brown, Rutgers, Connecticut, New Mexico and Texas. In addition feasibility studies are under way in ten states and there is every reason to believe that favorable decisions will result in some of these. Matching federal grants for medical school construction have been considered by Congress, but so far have not been passed. Aid from this source would undoubtedly encourage establishment of new schools. Federal aid doesn't make the project cost less, but it makes it seem that the money raised locally is less.

The school year just ended found 85 new first-year students more than the previous year, and in addition 40 students entered the new school of the University of Kentucky. In 1960-61 there were 30,288 students enrolled in the nation's 86 medical schools.

A review of the applicants' grades in their premedical studies showed that the relative proportion of "A," "B" and "C" students has remained almost the same since 1954. Those schools which conduct admission tests reported a rather stable test score average in recent years.

Another survey by the Council of the 115 colleges and universities which supply more than 70% of medical students showed that the percentage of identifiable premedical students has remained approximately the same since 1956.

The report also acknowledges the phenomenon of student familiarization and recruitment activities by medical schools, medical societies and other public-spirited organizations.

The Council finds a relaxation of geographic residential restrictions on the part of publicly owned schools. This is, in part at least, due to the increasing tendency of graduates to practice in states other than the one in which they are educated. The number of doctors beginning practice in the state where they received the M.D. degree has decreased steadily since 1930.

A *J.A.M.A.* editorial sums up the situation— "If the number of medical graduates is to be increased, we must first provide additional training facilities. When this is done and when financial aid for the study of medicine becomes available to an extent comparable to that for other fields, and when the satisfaction gained by the physician in his profession is truly emphasized, then there will be capable students ready to accept the opportunity and challenge."

Another indication of better times in medical education is an increase in full-time faculty members. In recent times there have always been vacancies in the full-time category. This shortage has now been reduced to four percent. More and more full-time teachers will be needed as the new schools are opened.

Suicide*

STATISTICALLY the magnitude of the problem of suicide is deserving of much more attention. Dr. Paul H. Martin in his article "Some Statistics on Suicide" shows that the average age in his survey was near 50, but recent studies reported at the last American Psychiatric Association meeting indicate that suicides and attempted suicides among children and adolescents are more common than previously supposed.

In 1960 at New York's Bellevue Hospital, of 900 admissions to the children's psychiatric service, 106 were for suicide attempts, and of these 21 were of children under 12.

The philosophical aspect of suicide enters into the public's attitude toward it. Someone once said, "outside of the Judeo-Christian and Mohammedan peoples there has never been the same hue and cry about self-inflicted death." Many philosophers have expressed the belief that "there is nothing in the world to which every man has a more unassailable right than to his own life and person."

Likewise, the popular concept that suicide is evidence of mental derangement is a fallacy of generalization. It is often a paradox that if an individual succeeds in taking his life he is declared insane and thereby absolved from all blame, but if he fails he is held accountable for his act. It is true that many suicide attempts are directly related to psychotic thinking, but the larger number are best termed "impulsive." In these, the act is associated with an emotional storm with no premeditation or special planning.

* Martin, Paul H: Some Statistics on Suicide, p. 35.

Each case is a study in itself and must be dealt with individually.

The increase in publicity of this serious medico-social problem will contribute to the better management of the suicide risk through its breaking the barrier of taboo and the focusing of objective attention on those with suicidal intent. Careful studies from various areas reveal that communication of suicidal intent is quite high, with 40-70% showing such communication. Most of these are via direct verbal statements. Chronic alcoholics apparently have a greater tendency to make specific statements relating to suicidal intent than other diagnostic groups. In all groups the communications tend to be multiple, repeated and expressed to a number of different persons.

To assist in treatment, suicide must be recognized as the presenting symptom of an underlying emotional disorder. Classifications have been presented as a guide to the types of conflict that can lead to self-destruction. The large groups are those of the acutely depressed and the psychotic or schizophrenic group. Smaller categories include the self-mutilators, a compromise form of suicide, the accident-prone group, and the so-called physiologic suicides, who unconsciously neglect prescribed medical treatment such as the cardiac patient who will not live within his reserve. One should consider the possibility of suicide in the individuals showing severe depression with verbal expressions of self-depreciation and self-blame. Also, those with excessive concern over their physical health when it appears this is not a chronic hypochondriacal pattern, are deserving of attention. Individuals, especially children and young adults who are markedly fearful of punishment, surgical operations, or impending activities which might involve mutilation or torture, may be suicidal. The elderly individual who is concerned over being a burden to family or friends may seek escape. The history of other suicides in the family, either recent or at the same time of life of the patient, should bring about extra alertness. Finally, the history of previous suicide gestures and the time of the year may be significant. Statistics seem to show more suicides in the spring or early summer.

Surveys have shown that approximately 45% of suicide victims have had known medical contact within six months prior to the act; and in unsuccessful attempts, 60% have had contact with the doctor. Alertness to the possibility of suicide will lead to recognizing signs and accepting verbal indicators. Individual cases require different therapeutic approaches; but all utilize the eliciting of all symptoms, the gaining of the patient's confidence, and constant vigilance in following through with treatment procedures. A significant percentage of suicides can be averted by recognition of indications, preventative measures and continued care. And while in our western culture men may differ widely in their attitude toward life and death with many rational decisions being made for death, it still must be considered that the conclusion may be a pathological one; and that if not safeguarded and treated, a useful life may be lost. It is the province of all of us to be alert to warning signals of suicide risk.— Dwight W. Schuster, M.D., Indianapolis.

Kyphoscoliosis*

KYPHOSCOLIOSIS produces a severe deformity of the spine and trunk of the body which usually has profound effects on the total body economy.

A true scoliosis is a lateral curvature of the spine usually associated with little if any kyphosis. The rib deformity caused by vertebral rotation may produce the appearance of kyphosis, but actually there is little kyphotic element to the deformity. Scoliosis is most commonly caused by anterior poliomyelitis and by a disturbance in the protein metabolism. The latter is usually called ideopathic scoliosis.

The true kyphosis is usually caused by tuberculosis. However, Scheuermann's osteochondritis of the vertebral bodies may cause kyphosis of various degrees of severity, yet seldom of extreme degree.

Kyphoscoliosis is a combination of scoliosis and kyphosis. Congenital spinal deformities and neurofibromatosis are the most common causes of severe kyphoscoliosis. A third group less fre-

* Elliott, Thomas A.: Kyphoscoliosis, p. 31.

quently encountered is the so-called infantile kyphoscoliosis.

The deformity of kyphoscoliosis is noted early usually before the age of ten years. It is rapidly progressive and is characterized by a short, three-dimension deformity of the spine. Regardless of the cause of the deformity the prognosis is bad for arrest of progression. About 15% of patients eventually develop paraplegia. Those who do not develop paraplegia show signs of altered thoracic physiology in early adult life. The most common complaint is shortness of breath and fatigue on slight exertion.

Since the prognosis in kyphoscoliosis is so bad, early attack to stop the progression is indicated. With our present knowledge of this deformity two types of treatment appear indicated. Both methods of treatment are based on distraction of the kyphoscoliotic deformity.

The so-called Milwaukee brace which fits about the iliac crests and about the occipitomental region is indicated in the early stages and if found effective may be continued until growth has been achieved. The Harrington instruments may be used. These are metallic inserts on the posterior elements of the spinal column which prevent progression. Usually these are used after the age of 10 years. Distraction of the curvature at the ends is the corrective principle of these surgical instruments.

Early diagnosis and early definitive treatment appears to be the only hope in the management of this devastating and progressive deformity.—George J. Garceau, M.D., Indianapolis.

Sign of the Times

IN THE NOVEMBER 1961 issue of The *Monthly Bulletin of the Indiana State Board of Health* is an article by Robert A. Calhoun, with tables, on "Mortality by Cause of Death" covering the year 1960. It is, of course, a kind of commentary upon our present civilization, and one of the interesting categories is that of accidents.

In the overall figures, accidents come fourth in the list of causes of death, but when analyzed by age groups the answer is somewhat startling. Under age one, "accidents" remains in fourth place, but from age one through 24 it takes first place, and for age 25-44 it is second, heart disease being first. In 1960 there were 1295 deaths from accidents in age group 1-44, and 799 at 1-24. In males age 15-24, accidents caused 67.3% of the deaths, in females the same age, 32.2%.

This is, of course, an old story, but it shows much room for improvement in the conservation of the state's most important asset—the younger citizens who should have longer and useful lives ahead. This is one field in which the physician and other scientists, as such, cannot do as much in prevention as they can in other categories, yet they can and should do their part as citizens. Even here, the physician's opinion probably carries more weight than average, and it is worthwhile for us to support and encourage all safety campaigns. Probably most of our patients do not know that accidents rate number one in deaths at age 1-24, but we doctors know it, and information of this kind should be most helpful in alerting parents to the responsibility of accident prevention.—A. W. Cavins, M. D., Terre Haute.

Lobo

TO PROTECT THEMSELVES against maurauding wolf packs, the Eskimos imbed the handles of razor-sharp knives in the ice and smear the blades with seal blood. Thus attracted, the wolves lick the blades eagerly, cut their tongues, and are overjoyed at the seemingly inexhaustible supply of nourishing blood they can lick off the knives. This perpetual cycle gradually becomes not so perpetual, for Br'er Wolf eventually develops anemia, normocytic, normochromic, severe, secondary to hemorrhage; and quickly drops exsanguinated, an easy prey to the frigid elements or to other members of his fraternity as is the custom in wolf circles.

Today's counterpart of this is the emptying of the federal treasury on the whetted blades of

tumescent socialistic procedures fed by our rising taxes in economy-wrecking fashion. Pressure groups irresponsibly demand benefits peremptorily, as if these were natural rights; their predatory policy having little regard for economic stability. In effect, the mob goes searching for bread, and the means it employs, joined with the necessary defense spending whenever Mr. Krusch. delivers one of his polemics on Berlin, causes our taxes to soar to unprecedented heights. Another precept of the Marxian doctrine is that soaring taxes is the vanguard of State dissolution.—F. F. Premuda, M.D., reprinted with permission from *The Lake County Medical News,* Oct., 1961.

Editorial Notes . . .

No one knows how many general hospital beds are needed, but there are indications that the commonly accepted ratio of 4.5 general beds per 1,000 population is not the right figure and probably is considerably below the ideal. Dr. Milton Roemer, research director of the Sloane Institute of Hospital Administration, writes in *Hospitals* urging research on the subject. He cites the case of a county in which the bed supply was increased by 42%, following which there was an immediate increase in hospital admissions and in length of stay. At the same time there was no increase in sickness, no large increase in population served, and only a slight increase in number of physicians. Previously the community had felt that their hospital facilities were adequate. Obviously they had not been, and the only method of arriving at what was needed was to provide more beds and observe the usage. It may be that in recent years no American communities have had the amount of hospital facilities which people are willing to pay for.

Indiana University and Notre Dame University are among the leading schools of the country in preparation of students for entrance into medical school. The Association of American Medical Colleges recently reported a survey made on the even years from 1952 through 1960. In the list of the 25 universities contributing the most students to the first-year medical classes Indiana University appears each year studied and Notre Dame appears on the last three such lists. The 25 schools named accounted for approximately 30% of the nation's medical students; 45% of the more than 700 schools with premedical courses prepared 90% of the entering students.

Dr. Harry Howard, in his capacity as national president of the Blue Shield Plans attended a luncheon with other officials in Washington, D. C. to mark the occasion of the enrollment of the one millionth U. S. government employee in the Blue Cross-Blue Shield medical insurance plan for government employees. This is the largest group with a common employer in medical care insurance. Originally 38 medical care programs, of which Blue Cross-Blue Shield was one, were offered federal workers, 54% chose the Blues, and now there are one million workers and more than two million family members in the plan from this one group alone.

Britain's National Health Insurance program is on the up and up, expensewise, that is. The workers' contribution was recently raised 12 cents, from $1.37 to $1.49. What they pay for drugs, teeth and spectacles has been raised. In the over ten years of the plan almost no new hospital construction has eventuated. Patients wait for years for elective operations such as cholecystectomy. The cost to the government is now double what it was the first twelve months. The amount spent is almost equal to half that spent by Britain for defense. It is about 14% of total government expenditures.

Low-level radioactive waste dumps in the Pacific have not emitted enough radioactivity to be detectable at the present time. Two sites from 30 to 50 miles from the coast with water depths of at least 6,000 feet have been in use for many years. The location which has been used the longest contains about 14,000 curies in 22,000 packages. The sea water, bottom sediment and marine life were tested in the recent survey.

Adult iron tablets are deadly for children. Accounts of serious poisonings of children as a result of ingestion of numbers of iron sulfate tablets of the 0.3 gram size have been increasing. Half of the poisonings have resulted in deaths. Most laymen and some physicians consider iron tablets as innocuous but 10 to 30 tablets of the ordinary size have been fatal to young children. All adults for whom iron tablets are prescribed should be cautioned in regard to their danger to children.

Discarded pesticide containers constitute a health hazard, especially to children. The burning of emptied paper sacks which have contained any of the toxic organic phosphorus compounds such as parathion can be very hazardous. The re-use of glass or metal containers, or the exposure of children to the residue left in containers can result in death or serious sickness. An article in a recent number of the *Archives of Environmental Health* stresses caution in burning paper containers and recommends that metal and glass containers be thoroughly washed as soon as empty and that they be crushed and buried as soon as possible.

The rate at which new cases of tuberculosis are reported declines each year but the decline is not fast enough to eliminate the disease. The decline from 1959 to 1960 was 5%. Between 1952 and 1959 the average annual rate of decline was 8%. Public health authorities feel that the present means available should produce an annual decline of 10%. When this rate can be attained the disease will soon become of minor importance. Until that time it will continue as a long-term problem. Dr. Edward Blomquist, Chief of the Public Health Service's Tuberculosis Program, feels that the combination of drugs for treatment (90% effective in new cases) and isoniazid prophylaxis for the patient's family should make a 10% decrease possible.

Indiana in 1960 is listed by the U. S. Public Health Service as having reported 1195 new cases of active tuberculosis, a rate of 25.6. This compares favorably with the rate of 30.8 for the entire United States. Indiana ranks 29th among the 50 states on a scale where number one has the highest rate.

Barnes Hospital recently conducted tests on the bacterial contaminating effect of recirculating operating room air. In one room 80% of the air was recirculated after being pumped through a dry filter. In another room fresh outside air was passed through a large electrostatic filter and discarded after one passage. The recirculated air was found to be as clean and safe as the one-time air. The big difference between the methods is the money.

By using the recirculation method Barnes will save on its 14 operating rooms $42,000 original expense and $3,500 per year in operational expense. *Hospitals,* the Journal of the American Hospital Association, which reported the above, also pointed out that some state laws prohibit recirculation in operating rooms, although no other method has even been proven to be superior. Recirculation, at one time, was thought to contribute to the hazard of explosion of anesthetic gases, but this has been found to be not so.

The annual report of the Life Insurance Medical Research Fund is the occasion to note that the Fund's support of heart research in the past year amounted to $1,189,000 and that the grand total since the Fund was organized in 1945 comes to $13,770,000. Research in diseases of the heart and circulatory system is supported by research grants (53 this year) and the support of fellowships (21 this year). Since 1945 355 research programs and 271 Fellows have been financed.

President's Page

FURTHER CONVENTION COMMENT

It was not my intent to devote another article concerned with comments on the recent Annual Meeting of the Indiana State Medical Association held in Indianapolis in October but some information has just come to my attention which I feel I should pass on to the membership of the association. This information has to do with absenteeism of some Delegates to the two House of Delegates meetings at the recent State meeting.

It is my opinion that there are men in every county who would like to represent their particular county at the meetings of the House of Delegates, and that if a man is elected as a Delegate and accepts that responsibility he should attend the meetings. If he does not intend to meet this obligation he should not accept in the first place. Of course there are times when a physician cannot attend a planned meeting but in these cases it should be the duty of the elected Delegate to get his alternate there in his place.

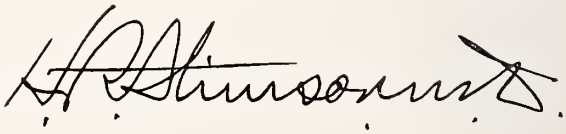


I have heard the opinion expressed many times that some method should be provided to inform the "physicians back home" just how their Delegates performed at the House meetings. In this same line of thinking I am going to give the figures on absenteeism at the most recent House meetings and list the names of the counties which had NO representation at EITHER of the meetings. This is intended for information.

There were nineteen (19) counties not represented at the first meeting of the House of Delegates and twenty (20) counties not represented at the 2nd meeting of the House. Included in these figures were fourteen (14) counties not represented at EITHER meeting, and these fourteen counties were Adams, DeKalb, Crawford, Jasper, Newton, Switzerland, Jennings, LaGrange, Orange, Owen, Vermillion, Pike, Pulaski and Spencer.

I hope this will not be interpreted by anyone as stepping on toes for this is not my intent. I am interested only in helping to make the strongest State Medical Association possible and I say again that this can be best accomplished by total participation of all Indiana physicians.

This being the first issue of the Journal for 1962 I want to wish everyone of you a very Happy New Year.





BULK IS BASIC

in treating constipation of pregnancy

METAMUCIL®

corrects constipation without irritation

"Pregnancy and menstruation[1] are contraindications to the use of the stronger cathartics, since the hyperemia may lead to abortion or excessive menstrual flow."

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Together with proper dietary management and attention to regularity, mild encouragement to regular evacuation which nearly all pregnant patients require is possible with nonhabit-forming Metamucil.

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1. Sollmann, T.: A Manual of Pharmacology and Its Applications to Therapeutics and Toxicology, ed. 8, Philadelphia, W. B. Saunders Company, 1957, p. 206.

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Research in the Service of Medicine

The Woman's Auxiliary

REPORTS TO ISMA

The Indiana Auxiliary has been chosen by the AMA as the pilot state for organization of the final stages of a campaign against King-Anderson. The WHAM campaign (Women Help American Medicine) will have three main objectives for concentrated effort:

1. Letters to Congressmen;
2. Letters to editors;
3. Resolutions from other women's groups opposing the enactment of HR No. 4222.



To accomplish this task, we will try to organize the state and county auxiliaries into effective units for contacting as many individual ladies in women's organizations as possible. It is felt that these groups can best be reached by doctors' wives who are already members of these other organizations.

Members of the AMA Staff and Mrs. Lawrence Rapee, National Auxiliary Legislative Chairman, met with the officers and chairmen of the Indiana State Auxiliary and representatives of the county auxiliaries and their advisors in the medical societies in the Ballroom of the Columbia Club on Tuesday, December 5. Present were 14 state officers and chairmen; 41 county officers and chairmen, representing 24 counties; 21 physicians and nine members of executive staff on national and state level.

That so many were able to leave their Christmas shopping and other pressing duties of the season is evidence of the alertness of our auxiliary members to the dangers inherent in this bill. They showed themselves willing to take on extra work by attending this all-day Workshop, even though they were given very short notice of the crash program we are planning.

I don't think it is going too far to say that what we accomplished at this meeting will play a historical part in the fate of the King-Anderson Bill. For this campaign to have the effect that its name implies, our county auxiliaries and medical societies must work closely together. We welcome any suggestions from you on how this campaign can be improved as it progresses.

Yi Kintner

Basic Research in the Pharmaceutical Industry

VICTOR A. DRILL, M.D.
*Chicago, Illinois**

ABOUT 85 PERCENT of the drugs now used in medical practice were unknown 15 or 20 years ago. This revolution began in the late twenties and early thirties when the pharmaceutical industry in the United States realized the necessity for basic research in the chemical and biological sciences and began to develop laboratories for this purpose.

The first laboratories in a growing industry are usually for control purposes; for drugs this means assurance of stability, purity, and potency. When the laboratory is expanded to include applied research, it is not long before the need for basic research becomes evident. Parke, Davis and Company was one of the pioneers in this effort and major steps in this direction were undertaken when Dr. K. K. Chen became the first Director of Pharmacological Research at the Eli Lilly Company in 1929. The Merck Laboratories expanded research efforts with the counsel and guidance of Dr. A. N. Richards, Professor of Pharmacology at the University of Pennsylvania. They dedicated their first pharmacology laboratory in 1933, with Dr. Hans Molitor as director. Other pharmaceutical companies followed in rapid succession. This upsurge in basic research was so unexpected and novel that the American Society for Pharmacology and Experimental Therapeutics withdrew membership for scientists employed in industry, and did not readmit them until 1941. But times have changed and today many outstanding scientists of industry and academic institutions share in the development of our basic medical knowledge.

* Director of Biological Research, G. D. Searle & Co.

What is Basic Research?

Basic research has been defined as the search for knowledge without regard to application. Such a meaning would exclude the physician who is dedicated to the alleviation of a cardiac valvular deformity, and may spend years in basic research on the problem to achieve his goal. In a sense, because a goal is set, this is applied research; but applied research, often considered inferior, can be quite basic. Similarly the chemist who attempts to determine the structure of cortisone, chloramphenicol, or reserpine may have in mind the synthesis of better derivatives, but may in the process need to develop new basic chemical concepts.

Today, the division between fundamental and applied research has practically disappeared. The National Science Foundation defines research as "systematic and intensive study directed toward a fuller knowledge of the subject studied and use of that knowledge directed toward the production of useful materials, devices, systems, methods, or processes, exclusive of design and production engineering." Basic research, therefore, is that research in which the investigator asks a question and then attempts by the scientific method to find his answer, and thereby increase the total of human knowledge.

Publications in Basic Research

Good research produces scientific papers and one method of measuring the contributions of the pharmaceutical laboratories to fundamental knowledge is by determining the number of reports appearing in scientific journals. Fisher,[1] in an analysis of one year's contributions of basic research papers by scientists of industrial

1943	Mercuhydrin	Lakeside
1952	Neohydrin	First oral mercurial (Lakeside)
1957	Diuril	Diuretic and antihypertensive compound (Merck)
1959	Hydrodiuril Esidrex	Ten times as potent as Diuril (developed independently by Merck and Ciba)
1959	Aldactone	Aldosterone antagonist; effective where mercurials and thiazides do not work (Searle)

Table I

laboratories, found that the chemical industry produced the largest number of papers. The pharmaceutical industry was second, contributing two-thirds as many papers though it is only one-tenth in size. Further, of all industries surveyed 59 American companies published more than ten papers each; 16 or 27% of this total were from the much smaller pharmaceutical laboratories.

New Drugs from Basic Research

New drugs developed during the past 15 to 20 years have added immensely to the ability of physicians to treat disease. Some few of the new drugs may be ascribed to the ingenuity of a single individual. Most were results of many investigations included in basic studies performed by academic and industrial laboratories in medical schools, and hospitals. A battery of experts—the chemist, biochemist, physiologist, pharmacologist, toxicologist, research clinician, and practicing physician—are needed for such projects. Although the role of the pharmaceutical laboratory in developing a number of major drugs is well known, the contributions of the pharmaceutical industry are substantially greater than is generally known.

Diuretic drugs are a good example of the fruits of research and the time factors involved. As recently as 1943 Lakeside Laboratories introduced Mercuhydrin into medical practice. Although extremely useful, Mercuhydrin and other mercurials were still ineffective or poorly effective in many patients and had certain hazards, plus the inconvenience of injection. It was not until 1952 that an orally effective mercurial diuretic was developed. (Table I) In the meantime Sharp and Dohme (later Merck Sharp and Dohme) began, in 1943, a basic renal research program and over a period of years their scientists added significantly to our fundamental knowledge of the kidney. This work led to the development of the thiazide drugs, with Diuril being made available to the physician in 1957.

Meanwhile, at our own laboratories, we began to approach the problem of edema from a different viewpoint. A sodium-retaining factor, present in the urine of edematous patients, had been reported by several authors and was identified as aldosterone in 1954. Although the causative role of aldosterone in edema was then unknown, a review of available data indicated the possible importance of this compound in the production of edema. Part of our renal program, therefore, was directed towards a study of this steroid. This project, begun in 1954, culminated in 1959 in Aldactone. The study was of basic importance because Aldactone, a steroid that blocks the action of aldosterone, is the first specific steroid-blocker to be discovered.

This finding opens the door to the development of blocking steroids in other areas of medicine. From the therapeutic standpoint Aldactone was of value because it relieved edema in many patients resistant to other drugs. The thiazide drugs and Aldactone act by different mechanisms in the kidney, and several clinicians found that a synergistic diuretic effect was obtained when these drugs were administered together. Not only did more patients respond to the combination but the potassium-losing effects of the thiazide were counteracted. Thus, from basic work of many scientists, came newer knowledge that led to the separate development of two new types of drugs for the further alleviation of disease.

Further examples of drug development may be noted in the fields of antibiotics and steroid hormones. (Tables II and III) Likewise, advances were made in vitamins, sulfonamides, antihistimines, tranquilizers, antihypertensive drugs, eurhythmic agents, pressor amines, anticholinergic drugs, motion sickness drugs, muscle relaxants, antiparasitic drugs, and in other areas.

SUMMARY OF VARIOUS ANTIBIOTICS

1940	Actinomycin	Discovered by Waksman in collaboration with Merck
1943	Penicillin	Large-scale production developed by several companies
1945	Potassium penicillin G	First orally effective penicillin
1946	Streptomycin	Discovered in a program by Waksman, Merck and Squibb
1946	Procaine penicillin	Lilly and other laboratories
1948	Dihydrostreptomycin	Merck
1948	Aureomycin	Discovery of first broad-spectrum antibiotic (Lederle)
1949	Chloromycetin	Broad-spectrum antibiotic (Yale University and Parke, Davis)
1949	Terramycin	Broad-spectrum antibiotic (Pfizer)
1951	Bicillin	Repository penicillin, permitting one injection therapy (Wyeth)
1952	Ilotycin Erythrocin	Alternative for penicillin (Lilly and Abbott)
1953	Achromycin Tetracyn Polycycline	Developed independently by Lederle, Pfizer and Bristol
1953	Fungizone	For certain systemic mycoses (Squibb)
1955	TAO	Pfizer
1957	Spontin	For resistant Gram-negative infections (Abbott)
1958	Declomycin	A basic modification of the tetracycline molecule (Lederle)
1959	Syncillin	First synthetic penicillin (Beecham and Bristol)
1959	Staphcillin	Synthetic penicillin effective against penicillin-resistant organisms (Beecham and Bristol)

Table II

SOME NEWER STEROID HORMONES

		1. Anti-inflammatory steroids
1952	Cortisone (Cortone)	Began a new era of therapy (synthesized by Merck)
1952	Hydrocortone	Merck
1955	Meticorten	A more potent corticoid (Schering)
1957	Medrol	Fewer side effects than prednisolone (Upjohn)
1958	Aristocort Kenacort	Effective anti-inflammatory agent, particularly topically (Lederle and Squibb)
1958	Decadron Deronil	Seven times prednisone potency; less salt retention (Merck and Schering)
1959	Oxylone	For topical use (Upjohn)
		2. Anabolic steroids
1956	Nilevar	First significant advance in androgen-anabolic modification (Searle)
1959	Durabolin	Organon
1960	Dianabol	Ciba
		3. Progestational steroids
1957	Enovid	Orally effective progestational steroid (Searle)
1957	Norlutin	Orally effective progestational steroid (Syntex and Parke, Davis)
1958	Prodox	Orally effective progestational steroids (Upjohn)
1959	Provera	
		4. Ovulation control
1960	Enovid	First approved chemical method for family planning

Table III

Continued on page 74

blood pressure approaches normal more readily, more safely....simply with Salutensin®

(hydroflumethiazide, reserpine, protoveratrine A–antihypertensive formulation)

Early, efficient reduction of blood pressure. Only Salutensin combines the advantages of protoveratrine A ("the most physiologic, hemodynamic reversal of hypertension"[1]) with the basic benefits of thiazide-rauwolfia therapy. The potentiating/additive effects of these agents[2-8] provide increased antihypertensive control at dosage levels which reduce the incidence and severity of unwanted effects.

Salutensin combines Saluron® (hydroflumethiazide), a more effective 'dry weight' diuretic which produces up to 60% greater excretion of sodium than does chlorothiazide[9]; reserpine, to block excessive pressor responses and relieve anxiety; and protoveratrine A, which relieves arteriolar constriction and reduces peripheral resistance through its action on the blood pressure reflex receptors in the carotid sinus.

Added advantages for long-term or difficult patients. Salutensin will reduce blood pressure (both systolic and diastolic) to normal or near-normal levels, and maintain it there, in the great majority of cases. Patients on thiazide/rauwolfia therapy often experience further improvement when transferred to Salutensin. Further, therapy with Salutensin is both economical and convenient.

Each Salutensin tablet contains: 50 mg. Saluron® (hydroflumethiazide), 0.125 mg. reserpine, and 0.2 mg. protoveratrine A. See Official Package Circular for complete information on dosage, side effects and precautions.

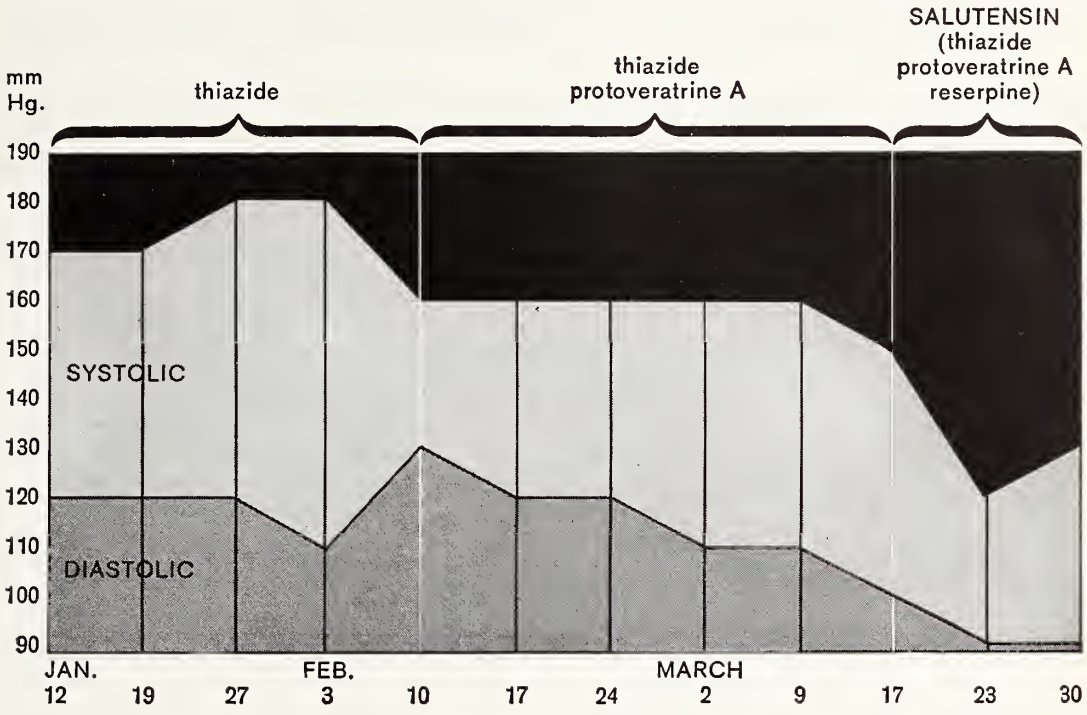
Supplied: Bottles of 60 scored tablets.

References: 1. Fries, E. D.: In Hypertension, ed. by J. H. Moyer, Saunders, Phila., 1959 p. 123. 2. Fries, E. D.: South M. J. **51**:1281 (Oct.) 1958. 3. Finnerty, F. A. and Buchholz, J. H.: GP **17**:95 (Feb.) 1958. 4. Gill, R. J., et al.: Am. Pract. & Digest Treat. **11**:1007 (Dec.) 1960. 5. Brest, A. N. and Moyer, J. H.: J. South Carolina M. A. **56**:171 (May) 1960. 6. Wilkins R. W.: Postgrad. Med. **26**:59 (July) 1959. 7. Gifford, R. W., Jr.: Read at the Hahnemann Symp. on Hypertension, Phila. Dec. 8 to 13, 1958. 8. Fries, E. D., et al.: J. A. M. A. **166**:137 (Jan. 11) 1958. 9. Ford, R. V. and Nickell, J.: Ant. Med. & Clin. Ther. **6**:461, 1959.

all the antihypertensive benefits of thiazide-rauwolfia therapy plus the specific, physiologic vasodilation of protoveratrine A

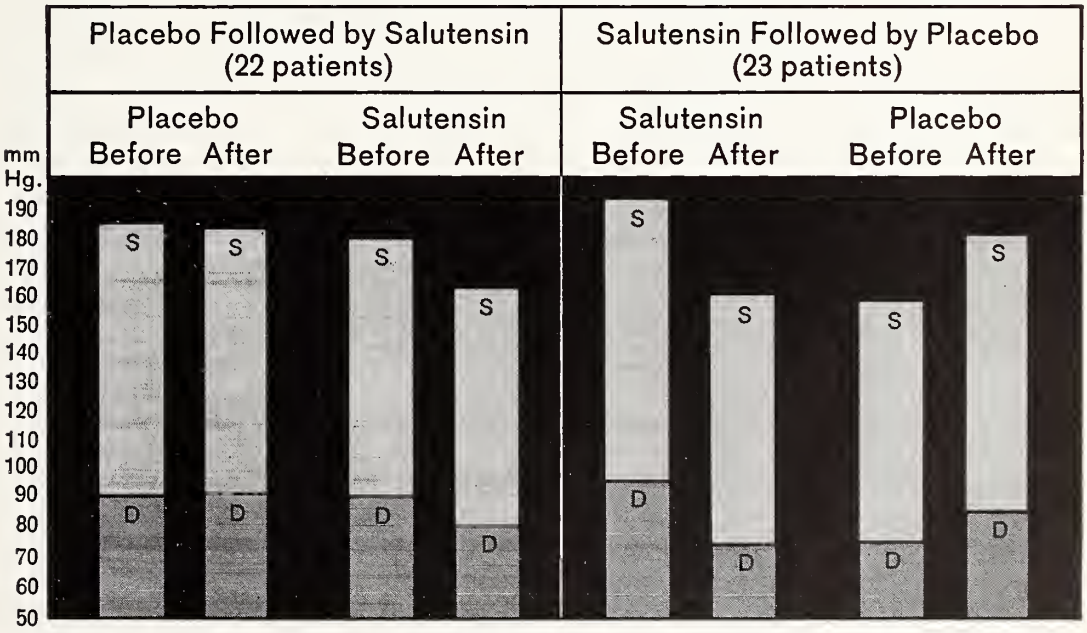
11 WEEKS TO LOWER BLOOD PRESSURE TO DESIRED LEVELS BY SERIAL ADDITION OF THE INGREDIENTS IN SALUTENSIN IN A TEST CASE

(Adapted from Spiotta, E. J.: Report to Department of Clinical Investigation, Bristol Laboratories)



3½ WEEKS TO LOWER BLOOD PRESSURE TO DESIRED LEVELS USING SALUTENSIN FROM THE START OF THERAPY IN A "DOUBLE BLIND" CROSSOVER STUDY

Mean Blood Pressures–Systolic (S) and Diastolic (D)



In this "double blind" crossover study of 45 patients, the mean systolic and diastolic blood pressures were essentially unchanged or rose during placebo administration, and decreased markedly during the 25 days of Salutensin therapy. (Smith, C. W.: Report to Department of Clinical Investigation, Bristol Laboratories.)

BRISTOL LABORATORIES / Div. of Bristol-Myers Co., Syracuse, N.Y.

BASIC RESEARCH

Continued from page 71

The result of such progress is that patients live today who would have died yesterday.

Increased Basic Research in Industry

Traditionally, the universities have been the centers for basic research. Following the introduction of such research into the pharmaceutical laboratory, and the resultant production of new drugs, similar changes have occurred in other fields. It has recently been stated that the "research done in industrial laboratories is now the major portion of research in progress in this country and is increasing steadily."[2] Hickey[3] has seriously questioned the ability of academic institutions to meet the increased requirements for basic research and Gershinowitz concludes that "It just isn't possible that enough work can be done at universities even if they did all fundamental research and no applied research."[2]

Basic research efforts must be further increased over the coming years. Basic research generates applied research, and the reverse is equally true. Today, there is no way to distinguish the scientist performing basic studies in an industrial laboratory from his counterpart in the university. The key is the individual scientist who must have originality, ability and a high degree of freedom in his work. The result is scientific publication and medical progress. Finally, the increase in knowledge and the production of new and useful drugs are important not only from the physician's standpoint, but are part of our total research contribution to the economic growth and gross national product of our nation.[4]



"I must say, Mrs. Goombach, that yours are the first varicose veins I've ever seen that resemble the direct route to Cincinnati."

The Future

The important role that basic research in the pharmaceutical industry has played in the development of new drugs is evident. This revolution in drug development, which has taken place over the past 30 years, will accelerate further as basic research is increased by the pharmaceutical laboratory. The rate of progress will also increase, for the time interval between the discovery of basic knowledge and its application is steadily decreasing and will shorten further.

REFERENCES

1. Fisher, J. C.: Basic Research in Industry. *Science*, 129:1653-1657, June 19, 1959.
2. Gershinowitz, H.: Industrial Research Programs and Academic Research. *American Scientist*, 46:24-32, March, 1958.
3. Hickey, A. E., Jr.: Basic Research: Should Industry Do More of It? *Harvard Business Review*, 36:115-122, July-August, 1958.
4. Ewell, R. H.: Role of Research in Economic Growth. *Chemical and Engineering News*, 33:2980-2985, July 18, 1955.

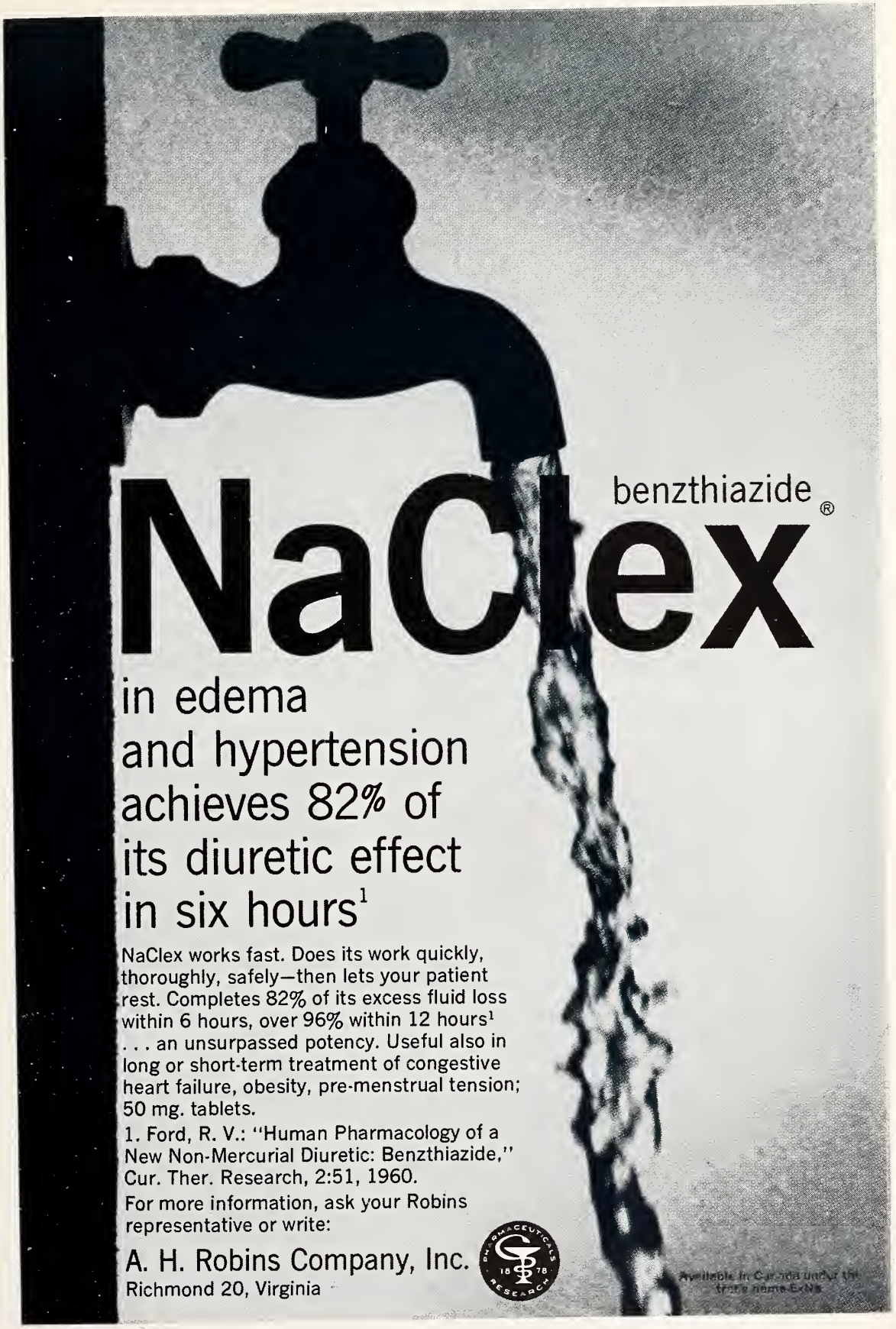
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Surgery of Colon & Rectum, One Week, March 5
Surgical Board Review, Part II, Two Weeks, March 5
General Surgery, One Week, February 26; Two Weeks, April 2
Gynecology, Office & Operative, Two Weeks, April 9
Vaginal Approach to Pelvic Surgery, One Week, March 26
Obstetrics, General & Surgical, Two Weeks, March 12
Pain Relief in Childbirth, 3 Days, March 7
Proctoscopy & Sigmoidoscopy, One Week, March 26
Treatment of Varicose Veins, One Week, March 26
Basic Internal Medicine, Two Weeks, March 26
Basic Electrocardiography, One Week, March 19
Gallbladder Surgery, 3 Days, March 12
Surgery of Hernia, 3 Days, March 15
Urology, Two Weeks, April 2
Surgery of the Hand, One Week, April 16

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in edema
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NaClex works fast. Does its work quickly, thoroughly, safely—then lets your patient rest. Completes 82% of its excess fluid loss within 6 hours, over 96% within 12 hours[1] . . . an unsurpassed potency. Useful also in long or short-term treatment of congestive heart failure, obesity, pre-menstrual tension; 50 mg. tablets.
1. Ford, R. V.: "Human Pharmacology of a New Non-Mercurial Diuretic: Benzthiazide," Cur. Ther. Research, 2:51, 1960.
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Hoosier Writes of Volunteer Work In Kantanga Missionary Hospital

Nov. 6, 1961

To the editor:

I am glad to write to you concerning my work in Africa. I am assisting Dr. Glen Eschtruth, a medical missionary at the Methodist Mission in Kapanga, Katanga. Kapanga is an administrative district in northwest Katanga and it is roughly 100 miles by 130 miles in size. The hospital, which is the only one in the district, has been in existence since 1914. The hospital has about 220 beds.

The patients come to the hospital from the villages throughout the district. Many of them have intestinal parasitic diseases and malaria. There is a large obstetrical service. At present, we have 21 patients with pulmonary tuberculosis and perhaps 10 patients with non-pulmonary tuberculosis. Since I have been here, surgical patients have included those with hernias, adenomatous thyroid, uterine fibroids, Caesarian section and miscellaneous wounds of the extremities. There are usually two or three cases each morning and I assist with them. We rely on spinal anesthesia whenever possible.

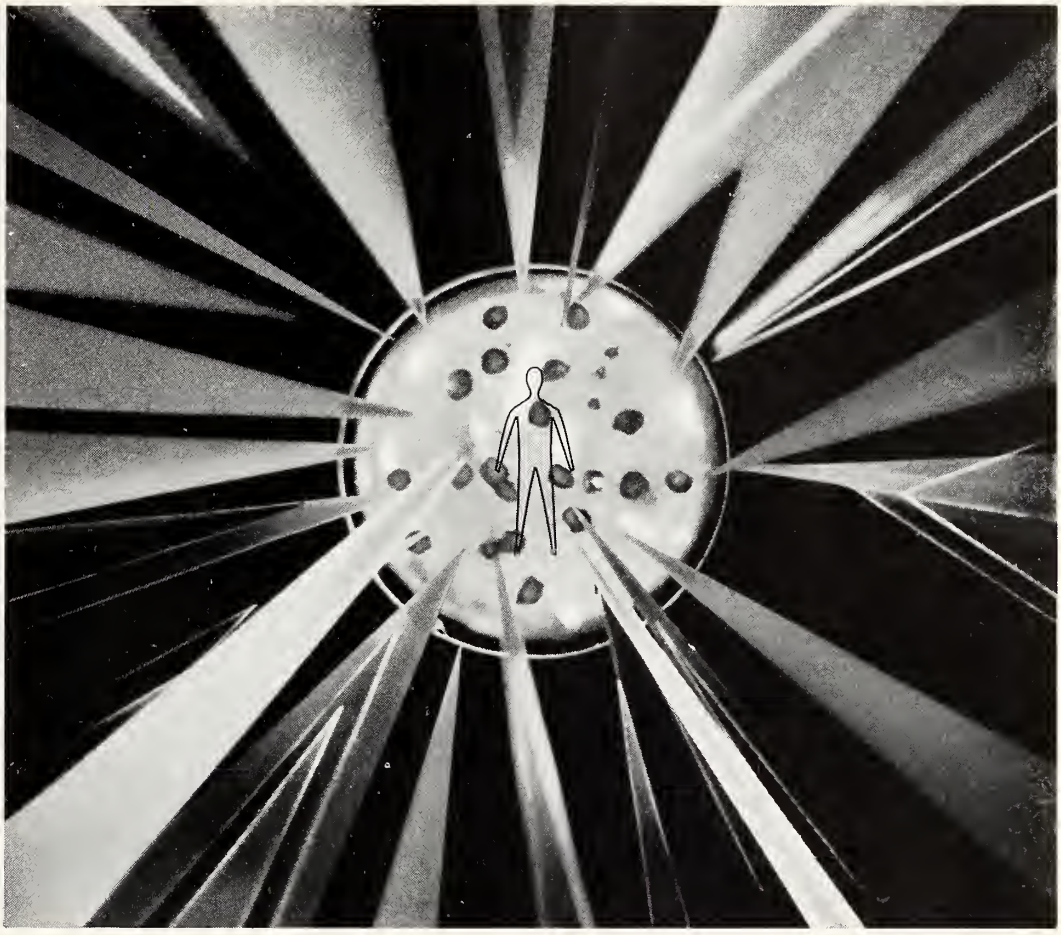
In the afternoons I spend as much time with the medical patients as possible. The hospital has an x-ray unit which had been used for fluoroscopy only. In part this was because of lack of time to train an African in x-ray procedure. I have been preparing an African to take the films and process them. I believe that he will be capable of continuing to do the mechanical parts of the radiographic work with a minimum of supervision after I leave. If so, this will be a contribution of a more permanent nature.

Obstetrical problems are common since most of the deliveries occur in native villages, or at least labor starts in the villages. Post-partum infections occur frequently. We have had one patient who had a ruptured uterus. She had had a previous section.

The laboratory services include examinations of the urine, stools for parasites, and blood for malaria. No chemical determinations of the blood have been done, and there is an opportunity to initiate these. Some equipment needs to be obtained and we are proceeding with this.

The patients usually speak only the native tongue, but the infirmiers speak French. One can soon remember enough French from high school and college days to converse about the patients, but there is little opportunity for detailed history taking. This is a handicap, but there are so many things that a doctor can do without a knowledge of the language that one should not hesitate to serve in this capacity.

Continued



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because... it contains phosphate-potentiated tetracycline
for prompt, dependable broad spectrum antibacterial action.

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to prevent monilial overgrowth in the gastrointestinal tract.

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Available as: Mysteclin-F Capsules (250 mg/50 mg) Mysteclin-F Half Strength Capsules (125 mg./25 mg) Mysteclin-F for Syrup (125 mg/25 mg per 5 cc) Mysteclin-F for Aqueous Drops (100 mg/20 mg per cc)
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SQUIBB *Squibb Quality— the Priceless Ingredient*

Gleaned from the British Medical Journal

JACK W. HICKMAN, M.D.
Indianapolis

Doubting the 80-85% recovery rate from Bell's palsy that is cited frequently in the literature, Matthews[1] reports that the actual figure is much lower. His study was of 156 cases of Bell's palsy which were followed to evaluate prognosis. Factors which adversely influenced prognosis were advancing age, a complete palsy, and herpes zoster (Ramsay-Hunt syndrome). If no motor function returned by four weeks, this was also a poor prognostic sign. The prognosis for complete recovery was 65% in this report, and this was obtained with patients seen within six days of the onset of symptoms.

* * *

Six patients with Stokes-Adams attacks that showed good responses to oral adrenocortical steroids are reported by Pay and Waverley.[2] These episodes had been present for some time in each case, and were not in the immediate post-coronary occlusion group, as had been reported previously by Phelps and Lindsay. Good results were obtained in these patients. Possible mechanisms for the effect of these hormones are reviewed. Potassium depletion is mentioned as a possible mode of action. More recent studies have shown that thiazide derivatives have been of value for Stokes-Adams, and this would support this explanation as the mechanism of action.

* * *

Wood[3] writes again about the no-man's land condition of coronary insufficiency. This clinical syndrome is described quite well in the article, and the reader is referred to it since no review can do justice to it. One hundred patients with coronary insufficiency were treated with anticoagulants, and 50 patients were not. All patients received the same therapeutic measures, e.g., nitrites, rest, diet, etc., otherwise. The study showed that the anticoagulant treated group had only one-fifth the mortality of the other group. Other measures for comparison such as frequency of frank myocardial infarction, cerebral thrombosis, and work records also gave support to the use of anticoagulants for patients with this condition.

* * *

An interesting study on Stein-Leventhal syndrome is presented by Short and London.[4] An analysis of ovarian cyst fluid from patients with this syndrome showed a high concentration of androstenedione and no estrone. In seven normal control patients, in whom normal or cystic ovaries were found incidentally at laparotomy, similar fluid was analyzed, and found to have much lower androgen concentrations, and the female hormone was detected in every case. The authors postulate a block in biosynthesis of estrogens. The increased accumulation of androgens could account for the hirsutism seen in these patients.

* * *

Two case reports of bilateral rupture of the Achilles tendons are recorded. The case reported by Smaill[5] may have caused the author some anguish, because the patient ruptured his second tendon during the course of the physical examination. This patient, and the one reported by Cowan and Alexander[6] were both on coricosteroids at the time of the tendon ruptures, so all authors suggest that this may be another complication of corticosteroid therapy.

REFERENCES

1. Matthews, W. B.: Prognosis in Bell's Palsy. *Brit. Med. J.*: 5246. pp. 215-217.
2. Pay, B. W., Waverley: Adrenocortical Steroids in Intermittent Heart-Block. *Brit. Med. J.*: 5245. pp. 139-142.
3. Wood, P.: Acute and Subacute Coronary Insufficiency. *Brit. Med. J.*: 5242. pp. 1779-1782.
4. Short, R. V., London, D. R.: Defective Biosynthesis of Ovarian Steroids in the Stein-Leventhal Syndrome. *Brit. Med. J.*: 5241, pp. 1724-1727.
5. Smaill, G. B.: Bilateral Rupture of Achilles Tendons. *Brit. Med. J.*: 5240. pp. 1657-1658.
6. Cowan, M. A., Alexander, S.: Simultaneous Bilateral Rupture of Achilles Tendons Due to Triamcinolone. *Brit. Med. J.*: 5240. pp. 1658.

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Medicine At Law

DECISIONS AND OPINIONS

Highlights of recent court actions pertaining to health and medicine from *The Citation* prepared by the Law Division of AMA.

Illinois law permits professional associations, but not medical corporations—A statute passed by the Illinois General Assembly to permit the formation of medical corporations has been vetoed by the Governor. Another statute to permit the formation of unincorporated professional associations, however, was signed by the Governor and became law. The latter statute applies to physicians as well as members of other professions. Both of these statutes (for details, see *The Citation,* Vol. 4, No. 1, p. 78) were intended to permit the benefits of tax-deferred pension plans under the Regulations of the Bureau of Internal Revenue.

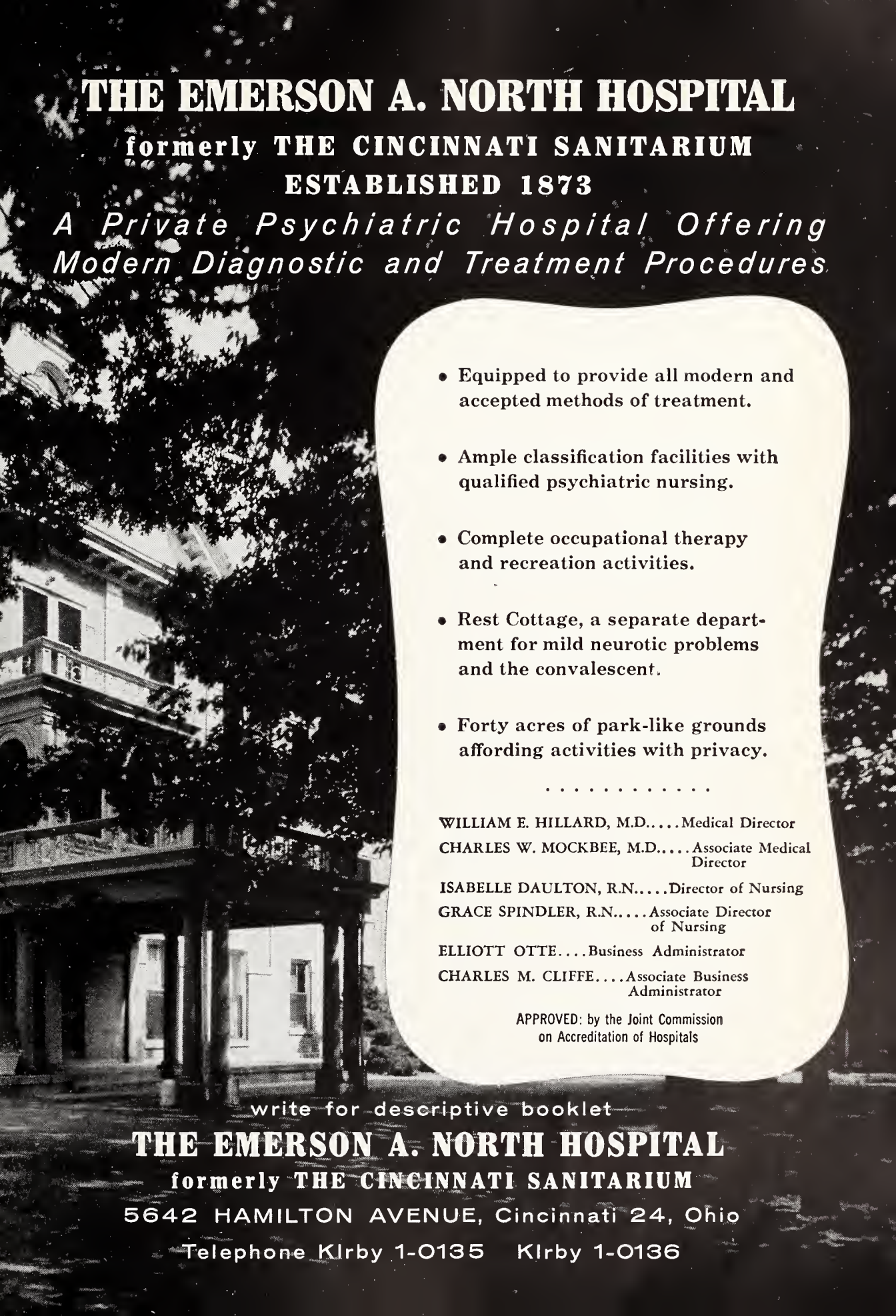
Revocation of physician's license for using narcotics upheld—An intermediate appellate court in California overruled technical objections and upheld the revocation of the license of a physician who admitted that he had administered narcotics to himself. He was not charged with furnishing narcotics to others. He had previously been convicted of using narcotics and his license had been continued on probation for three years. Eight months after the termination of the probation, he had resumed using narcotics.

The court held that there was no violation of law or denial of due process where the Board of Medical Examiners had assigned the proceeding to a hearing officer, referred it back to the hearing officer for further hearing, refused to furnish a copy of the hearing officer's proposed order prior to its adoption, refused to permit oral or written argument before the Board, and did not familiarize itself with the record before adopting the order. It also said that the Board did not violate the law or deny due process by failing to act on the physician's petition for reconsideration of the order. Although the hearing officer erroneously concluded that the physician had violated a section of the law relating to dispensing of narcotics to addicts, the court decided that the error was not prejudicial to the physician and did not mislead the Board. Despite the error, it was clearly established that the physician was guilty of unprofessional conduct sufficient to support the revocation of the license.—*Strode v. Board of Medical Examiners of California, 15 Cal Rptr. 879* (Calif., Sept. 1, 1961)

Driver's license revoked under North Dakota implied consent law—A suspected drunken driver refused to submit to a blood test to determine the alcoholic content of his blood. Accordingly, acting under the North Dakota Implied Consent Law, the North Dakota Highway Commissioner revoked his automobile license for six months.

But the trial court ordered the license reinstated. The court noted that the implied consent law provides that "any person who operates a motor vehicle upon the public highways of this state shall be deemed to have given consent . . . to a chemical test, or tests, of his blood, breath, saliva, or urine for . . . determining the alcoholic content of his blood. The test or tests shall be administered at the direction of a law enforcement officer . . ." The court held that the arresting officer had not complied with the law as he did not allow the driver to select one of the four tests; rather the arresting officer chose the test.

On appeal, the Supreme Court of North Dakota reversed the trial court. The court held: "The exact type of test to be given is to be determined not by the person who is charged with drunken driving but by the officer who knows what test or tests his department is equipped to give. This is the clear meaning of the statute when it provides that a 'test or tests shall be administered at the direction of a law enforcement officer'."—*Timm v. State, 110 N.W. 2d 359* (N. Dak., Aug. 22, 1960). ◄



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ABSTRACTS

BOOK REVIEWS

INSTRUCTIONAL COURSE LECTURES FROM 1959 ACADEMY OF ORTHOPAEDIC SURGEONS

Editor, Dr. Fred C. Reynolds, Vol. 16.

The 1959 Instructional Course program for the American Academy of Orthopaedic Surgeons consisted of 124 courses, presented by 181 instructors. This book is restricted to 42 courses of the possible 124, to keep it at the satisfactory price level.

These 42 courses are organized under seven main topics, each topic will be discussed accordingly.

Part one: Symposium on injuries to athletes. An excellent discussion on the philosophy of athletic sports, particularly stressing that the major attention should be directed toward those facets of athletic programs that will return the major good to the greatest number. A challenge to the doctors to advance in preventive measures in order to minimize serious and fatal injuries instead of routinely disqualifying the injured from future competitive sports. Sports are here to stay—medicine must justify itself and keep the athlete in good condition and restore him back to the game, if injured, in the least possible time, with complete 100% physical restoration if possible. Prevention and treatment are outlined well in chart form. Specific areas of injury management are discussed.

Part two: The hand. Salient features of the anatomy of the hand presented. Dupuytren's contracture—a new concept in its pathogenesis—thereby establishing at what stage and what type of surgery can be of value under these conditions. Surgery of the paralytic hand discussed in relation to etiology and anatomical components, stressing thumb value to hand.

Part three: The foot. Stresses importance of treatment as soon as possible when congenital deformities are recognized. Treatment and observation to continue until final stability is attained. Various operative procedures for foot deformitics are discussed.

Part four: The knee. Internal anatomy presented, pointing out the origin and function of the menisci and injuries thereto and their treatment. Additional factors of knee stability are discussed. Because of its exposed position and configuration, this joint is vulnerable to frequent injury and degenerative changes. Most of the internal derangements are amenable only to operative treatment. Early diagnosis and prompt surgical treatment is essential for preventing permanent damages. The various derangements are discussed adequately and clearly.

Part five: The spine. The more common back problems affecting industrially connected situations such as intervertebral discs, degenerative changes, postural changes, fractures and impairment rating associated with these problems are clearly and studiously discussed. Analysis and treatment of scoliotic problems add further help to the back problems. Surgical treatment, as given, attempts to straighten the curves, maintain the correction and fuse the proper segments for final stability.

Part six: This is divided into three parts. Unequal extremities; osteomyelitis and electromyography in orthopedic surgery.

Unequal extremities. This was designed to assist in making sound decisions by suggesting the means and methods of appraising growth of the extremities that are unequal for one reason or another.

Osteomyelitis. This presentation is aimed toward a better understanding of the anatomical, physiological, pathological and bacteriological considerations underlying the clinical course and the rationale of therapy of the osteomyelitic lesion. A more modern picture is presented with adequate discussion of the antibiotics and surgical relationships.

Electromyography. This is employed for neurodiagnosis and the study of locomotion and muscle function. As a supplement, it may be used in intervertebral disc problems (cervical spine or lumbar), brachial plexus injuries, primary myopathies or those secondary to nervous system lesions. Tendon transplants can be appraised in deep structures pre and postoperatively.

Part seven: Fractures. (1) Simple fractures in and about the elbow joint require only simple treatment. Those with displacement, the author states, require early operation, solid internal fixation, followed by three weeks (usually) immobilization and then integrated active exercises. Complications late and early are reviewed. Myositis ossificans, early, can be treated with hydrocortisone injections with surprisingly good results. Ankylosed elbows are re-evaluated for reconstruction procedures, arthroplasty or resection of the joint. (2) Fresh femoral neck fractures discussed through a symposium on the use of prosthesis. Choice of patients very important. In fresh fractures, well chosen, has proved to be of value. Prosthesis usually gives less than a perfect result and more than a poor result. Primary fixation with nail or pins preferred if at all possible. Factors in favor of prosthesis are: (a) they are more economical; (b) permit early ambulation; (c) eliminate non-union. Best results are found in early fracture groups, not the salvage groups. Some clear-cut indications for prosthesis in the early fractures are: (a) Osteoporosis (severe); (b) femoral head necrosis (through X-ray exposure or other conditions); (c) pathological fractures (for tumors, etc.); (d) fractures in severe, chronic rheumatoid arthritis, and (e) fractures in spastic hemiplegic and subcapitol fractures, Powell 3 type. Various forms of prosthesis are given a good comparative analysis and what to expect from each.

This book is well organized and full of valuable material for the orthopedic surgeon.

Reid L. Keenan, M.D.
Indianapolis

Continued on page 90

'THORAZINE' PRESCRIBING INFORMATION

Because of its pronounced calming effect, 'Thorazine' is an outstanding agent for patients with mental and emotional disturbances, particularly those with symptoms of agitation and hyperactivity. In severe cases, initial use of intramuscular administration may be desirable to control symptoms promptly.

Before prescribing 'Thorazine' for other indications than those given below, the physician should be familiar with the dosage, side effects, cautions and contraindications for such uses. This information is available in the *Tharazine® Reference Manual* and *Physicians' Desk Reference,* and from your SK&F representative or your pharmacist.

ADMINISTRATION AND DOSAGE

Dosage should always be adjusted to the response of the individual and according to the severity of the condition. It is important to increase dosage until symptoms are controlled or side effects become troublesome. In emaciated or senile patients, dosage increases should be made more gradually than in other patients.

ADULT DOSAGE

Mental and Emotional Disturbances (e.g., agitation, excitement, or anxiety)—*Starting oral dosage* is 10 mg. t.i.d. or q.i.d., or 25 mg. b.i.d. or t.i.d. After a day or two, dosage may be increased by increments of 20 mg. to 50 mg. daily, at semiweekly intervals, until maximum clinical response is achieved. Continue dosage at this level for at least two weeks; then it can usually be reduced to a maintenance level. A daily dosage of 200 mg. is "average," but some patients may require substantially higher dosages. Discharged mental patients, for example, may require daily dosages as high as 800 mg. *Starting intramuscular dose* is 25 mg. (1 cc.). If necessary, and if no hypotension occurs, repeat the initial dose in one hour. Subsequent dosages should be oral, starting at 25 mg. to 50 mg. t.i.d.

Alcoholism—Severely agitated patients: *Starting intramuscular dose* is 25 mg. to 50 mg. (1-2 cc.). Repeat initial dose if necessary and if no hypotension occurs. Start subsequent oral dosages at 25 mg. to 50 mg. t.i.d. **Agitated but manageable patients:** *Starting oral dose* is 50 mg., followed by 25 mg. to 50 mg. t.i.d. For ambulatory patients with withdrawal symptoms or sober chronic alcoholics, *starting oral dosage* is 10 mg. t.i.d. or q.i.d., or 25 mg. b.i.d. or t.i.d. Patients in a stuporous condition should be allowed to sleep off some of the effects of the alcohol before 'Thorazine' is administered.

CHILDREN'S DOSAGE

For Behavior Disorders—*Oral dosage* is on the basis of ¼ mg./lb. of body weight q4-6h, until symptoms are controlled (i.e., for 40 lb. child—10 mg. q4-6h). *Rectal dosage* is on the basis of ½ mg./lb. of body weight q6-8h, p.r.n. (i.e., for 20-30 lb. child—half of a 25 mg. suppository q6-8h). *Intramuscular dosage* is on the basis of ¼ mg./lb. of body weight q6-8h, p.r.n. In children up to 5 years (or 50 lbs.)—not over 40 mg./day; in children 5-12 years (or 50-100 lbs.)—not over 75 mg./day except in extreme unmanageable cases. In severe cases, higher dosages than those recommended above may be necessary. In such cases, 50-100 mg. daily has been used and, in older children, as much as 200 mg. daily or more may be required.

IMPORTANT NOTES ON INJECTION

Except for acute ambulatory cases, parenteral administration should generally be reserved for bedfast patients. Parenteral administration should always be made with the patient lying down and remaining so for at least ½ hour afterward because of possible hypotensive effects. The injection should be given *slowly, deep* into the upper outer quadrant of the buttock. If irritation and pain at the site of injection are problems, dilution of 'Thorazine' Injection with physiologic saline solution or 2% procaine solution may be helpful. Subcutaneous administration is not advisable, and care should be taken to avoid injecting undiluted 'Thorazine' Injection into a vein. Intravenous administration is recommended only for severe hiccups and surgery.

'Thorazine' Injection should not be mixed with other agents in the syringe. Because contact dermatitis has been reported with 'Thorazine', nurses or others giving frequent injections should avoid getting the solution on hands or clothing. 'Thorazine' Injection should be protected from light, since exposure may cause discoloration. Slight yellowish discoloration will not alter potency or efficacy. If markedly discolored, the solution should be discarded.

SIDE EFFECTS

The drowsiness caused by 'Thorazine' is usually mild to moderate and disappears after the first or second week of therapy. If, however, drowsiness is troublesome, it can usually be controlled by lowering the dosage or by administering small amounts of dextro amphetamine.

Other side effects reported occasionally are dryness of the mouth, nasal congestion, some constipation, miosis in a few patients and, very rarely, mydriasis.

Mild fever (99°F.) may occur occasionally during the first days of therapy with large intramuscular doses.

Some patients have an increased appetite and gain weight, but usually reach a plateau beyond which they do not gain.

CAUTIONS

Jaundice: The over-all incidence of jaundice due to 'Thorazine' has been low—regardless of indication, dosage, or mode of administration. It appears to be related to duration of therapy. Few cases have occurred in less than one week or after six weeks. The jaundice that has occurred mimics the obstructive type, is without parenchymal damage, and is usually promptly reversible upon the withdrawal of 'Thorazine'. Although the mechanism is not clearly understood, most investigators conclude that it is a sensitivity reaction in susceptible individuals.

There is no conclusive evidence to indicate that pre-existing liver disease makes the patient more susceptible to jaundice. (Patients with known alcoholic cirrhosis have been treated with 'Thorazine' without further alteration of liver function.) Nevertheless, 'Thorazine' should be used with due consideration in a patient with liver disease.

If a patient on 'Thorazine' suddenly develops fever with grippe-like symptoms, his serum should be tested for increased bilirubin or his urine for the presence of bile. If any of these tests are positive, 'Thorazine' should be discontinued.

Because detailed liver function tests of 'Thorazine'-induced jaundice give a picture which mimics extrahepatic obstruction, exploratory laparotomy should be withheld until sufficient studies confirm extrahepatic obstruction.

Agranulocytosis: Agranulocytosis, although rare, has been reported. Patients should be observed regularly and asked to report at once the sudden appearance of sore throat or other signs of infection. If white blood counts and differential smears give an indication of cellular depression, the drug should be discontinued, and antibiotic and other suitable therapy should be instituted.

Because most reported cases have occurred between the fourth and the tenth weeks of treatment, patients on prolonged therapy should be observed particularly during that period.

A moderate suppression of total white blood cells, sometimes observed in patients on 'Thorazine' therapy, is not an indication for discontinuing 'Thorazine' unless accompanied by other symptoms.

Potentiation: 'Thorazine' prolongs and intensifies the action of many central nervous system depressants such as anesthetics, barbiturates and narcotics. Consequently, it is advisable to stop administration of such depressants before initiating 'Thorazine' therapy. Later the depressant agents may be reinstated, starting with low doses, and increasing according to response. Approximately ¼ to ½ the usual dosage of such agents is required when they are given in combination with 'Thorazine'. (However, 'Thorazine' does not potentiate the anticonvulsant action of barbiturates. In patients who are receiving anticonvulsants, the dosage of these agents—including barbiturates—should not be reduced if 'Thorazine' is started. Rather, 'Thorazine' should be started at a very low dosage and increased, if necessary.)

Hypotensive Effect: Postural hypotension and simple tachycardia may be noted in some patients. In these patients, momentary fainting and some dizziness are characteristic and usually occur shortly after the first parenteral dose, occasionally after a subsequent parenteral dose—very rarely after the first oral dose. In most cases, prompt recovery is spontaneous and all symptoms disappear within ½ to 2 hours with no subsequent ill effects. Occasionally, however, this hypotensive effect may be more severe and prolonged, producing a shock-like condition.

In consideration of possible hypotensive effects, the patient should be kept under observation (preferably lying down) for some time after the initial parenteral dose. If, on rare occasions, hypotension does occur, it can ordinarily be controlled by placing the patient in a recumbent position with head lowered and legs raised. If a vasoconstrictor is required, 'Levophed' and 'Neo-Synephrine'★ are the most suitable. Other pressor agents, including epinephrine, are not recommended because phenothiazine derivatives may reverse the usual elevating action of these agents and cause a further lowering of blood pressure.

Antiemetic Effect: The antiemetic effect of 'Thorazine' may mask signs of overdosage of toxic drugs and may obscure diagnosis of conditions such as intestinal obstruction and brain tumor.

Dermatological Reactions: Dermatological reactions have been reported. Most have been of a mild urticarial type, suggesting allergic origin. Some appear to be due to photosensitivity, and patients on 'Thorazine' should avoid undue exposure to the summer sun.

Neuromuscular (Extrapyramidal) Reactions: With very high doses of 'Thorazine', as frequently used in psychiatric cases over long periods, a few patients have exhibited neuromuscular (extrapyramidal) reactions which closely resemble parkinsonism. Such symptoms are reversible and usually disappear within a short time after the dosage has been decreased or the drug temporarily withdrawn. These reactions can also be controlled by the concomitant administration of an anti-parkinsonism agent (see *Physicians' Desk Reference*). Depending on the severity of the symptoms, suitable supportive measures such as maintaining a clear airway and adequate hydration should be employed. When 'Thorazine' is reinstituted, it should be at a lower dosage.

Lactation: Moderate engorgement of the breast with lactation has been observed in female patients receiving very large doses of 'Thorazine'. This is a transitory condition which disappears on reduction of dosage or withdrawal of the drug.

CONTRAINDICATIONS

'Thorazine' is contraindicated in comatose states due to central nervous system depressants (alcohol, barbiturates, narcotics, etc.) and also in patients under the influence of large amounts of barbiturates or narcotics.

SUPPLIED

Tablets, 10 mg., 25 mg., 50 mg. and 100 mg., in bottles of 50, 500 and 5000; 200 mg., for use in mental hospitals, in bottles of 500 and 5000. (Each tablet contains 10 mg., 25 mg., 50 mg., 100 mg., or 200 mg. of chlorpromazine hydrochloride.)

Spansule® capsules, 30 mg., 75 mg., 150 mg. and 200 mg., in bottles of 30, 250 and 1500; also 300 mg., in bottles of 30 and 1500. (Each 'Spansule' capsule contains 30 mg., 75 mg., 150 mg., 200 mg., or 300 mg. of chlorpromazine hydrochloride.)

Ampuls, 1 cc. and 2 cc. (25 mg./cc.), in boxes of 6, 100 and 500. (Each cc. contains, in aqueous solution, 25 mg. of chlorpromazine hydrochloride; 2 mg. of ascorbic acid; 1 mg. of sodium bisulfite; 1 mg. of sodium sulfite; 6 mg. of sodium chloride.)

Multiple-dose Vials, 10 cc. (25 mg./cc.), in boxes of 1, 20 and 100. (Each cc. contains, in aqueous solution, 25 mg. of chlorpromazine hydrochloride; 2 mg. of ascorbic acid; 1 mg. of sodium bisulfite; 1 mg. of sodium sulfite; 1 mg. of sodium chloride; 2% benzyl alcohol as preservative.)

Syrup, 10 mg./teaspoonful (5 cc.), in 4 fl. oz. bottles. (Each 5 cc. contains 10 mg. of chlorpromazine hydrochloride.)

Suppositories, 25 mg. and 100 mg., in boxes of 6. (Each suppository contains 25 mg. or 100 mg. of chlorpromazine; glycerin, glyceryl monopalmitate, glyceryl monostearate, hydrogenated cocoanut oil fatty acids, hydrogenated palm kernel oil fatty acids, lecithin.)

Concentrate (for hospital use), 30 mg./cc., in 4 fl. oz. bottles, in cartons of 12 and 36, and in gallon bottles. (Each cc. contains 30 mg. of chlorpromazine hydrochloride.)

★'Levophed' and 'Neo-Synephrine' are the trademarks (Reg. U.S. Pat. Off.) of Winthrop Laboratories for its brands of levarterenol and phenylephrine respectively.

ABSTRACTS, REVIEWS

Continued from page 86

CARDIOLOGY—An Encyclopedia of the Cardio-Vascular System

Aldo Luisada, editor. Volume Five. McGraw-Hill Book Co., New York; Related Specialty Fields. Parts 21 through 27. $25.00 NEW. 1961.

The first four volumes of this monumental treatise were reviewed in this journal in August, 1960. This fifth volume completes the original task set for Dr. Luisada and his editorial board. Unswervingly, it maintains the exceedingly high standards described in the original discussion of the set. The publishers continue to lavish the very best technical and printing art conceivable. The format leaves nothing to be desired and the shortened summary of the salient facts is praiseworthy.

The chapter on the cardiovascular system in pregnancy by Dr. Massey has several points which, in my opinion, are controversial and need clearer labeling as such. This is especially so in a volume which, presumably, is aimed at the non-obstetric expert. I am impressed at the rather unnecessary difficulty in "the task of evaluation of which cardiac is going to get into trouble and which will not."

The obstetricians whose opinions I respect, when shown this section, appeared disinclined to advocate therapeutic abortion. With successful therapy of the cardiac state, extreme pessimism does not seem warranted. Were weight gains to be restricted more severely and were sodium allowances to be less generous early enough, abdominal hysterectomy in the second trimester might not be needed. Also, routine cesarian section of the decompensated cardiac is a debatable procedure and not to be urged without many qualifying ifs. These most respectful interpolations in no way detract from Dr. Massey's over-all excellent presentation and basically sound advice.

This fifth volume will not disappoint the reader already primed to expect the superlative. Again, I can only—yet again—congratulate Dr. Luisada on the luster added to the set by this multifaceted volume presenting so much so crisply, authoritatively and superbly.

Arnold Lieberman, M.D.
New York, N. Y.

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Abstracts From Various Literature, Prepared by AMA

POSTOPERATIVE PULMONARY ATELECTASIS

Atelectasis is still an important postoperative pulmonary complication. It is generally agreed that the predominant causal factor is a complete bronchial occlusion by secretions, although reflex nervous stimuli have also been implicated to contribute greatly to the occlusion. The role of postoperative hypoventilation in the etiology of atelectasis remains a controversial one. The diagnosis of atelectasis depends chiefly upon a study of the signs and symptoms but it is aided by the findings of physical examination, x-ray films, and, occasionally, bronchoscopy. Treatment and prevention of atelectasis are simple and effective, consisting chiefly of measures to remove the obstruction, such as coughing, postural drainage, or bronchial catheterization.

Wong, R. K. L.: Postoperative Pulmonary Atelectasis. *Disease of the Chest* 40:302, Sept., 1961.

PROLONGED RETENTION OF THE DEAD FETUS IN UTERUS

Paper describes two cases of severe postpartum hemorrhage with hypofibrinogenemia from prolonged retention of the dead fetus in uterus, and it presents an analysis of 109 cases of intrauterine death. Six percent of intrauterine deaths will retain the dead fetus for five weeks or more. Hypofibrinogenemia occurs in less than one percent of unselected intrauterine deaths. The longer the dead fetus is retained, the more likely is the occurrence of hypofibrinogenemia. There is no anxiety unless (a) the pregnancy is 16 weeks or more and (b) the fetus is retained 5 weeks. Retention beyond term is very rare. Therefore, the danger period is between 22 and 32 weeks. During this time, a more radical policy towards termination of pregnancy is advised. A detailed scheme of management is outlined

Continued on page 94

"nutrition...present as a modifying or complicating factor in nearly every illness or disease state"[1]

1. Youmans, J. B.: Am. J. Med. 25:659 (Nov.) 1958

cardiac diseases "Who can say, for example, whether the patient chronically ill with myocardial failure may not have a poorer myocardium because of a moderate deficiency in the vitamin B-complex? Something is known of the relationship of vitamin C to the intercellular ground substance and repair of tissues. One may speculate upon the effects of a deficiency of this vitamin, short of scurvy, upon the tissues in chronic disease."[2] 2. Kampmeier, R. H.: Am. J. Med. 25:662 (Nov.) 1958.

arthritis "It is our practice to prescribe a multiple vitamin preparation to patients with rheumatoid arthritis simply to insure nutritional adequacy . . ."[3]
3. Fernandez-Herlihy, L: Lahey Clinic Bull. 11:12 (July-Sept.) 1958.

digestive diseases Symptoms attributable to B-vitamin deficiency are commonly observed in patients on peptic ulcer diets.[4] Daily administration of therapeutic vitamins to patients with hepatitis and cirrhosis is recommended by the National Research Council.[5] 4. Sebrell, W. H.: Am. J. Med. 25:673 (Nov.) 1958. 5. Pollack, H., and Halpern, S. L.: Therapeutic Nutrition, National Academy of Sciences and National Research Council, Washington, D. C., 1952, p. 57.

degenerative diseases "Studies by Wexberg, Jolliffe and others have indicated that many of the symptoms attributed in the past to senility or to cerebral arteriosclerosis seem to respond with remarkable speed to the administration of vitamins, particularly niacin and ascorbic acid. These facts indicate that the vitamin reserve of aging persons is lowered, even to the danger point, more than is the case in the average American adult."[6] 6. Overholser, W., and Fong, T.C.C. in Stieglitz, E. J.: Geriatric Medicine, 3rd edition, J. B. Lippincott, Philadelphia, 1954, p. 264.

infectious diseases Infections cause a lowering of ascorbic acid levels in the plasma; and the absorption of this vitamin is reduced in diarrheal states.[7] 7. Goldsmith, G A.: Conference on Vitamin C. The New York Academy of Sciences, New York City, Oct. 7 and 8, 1960. Reported in: Medical Science 8:772 (Dec.10) 1960.

diabetes Diabetics, like all patients on restricted diets, require an extra source of vitamins.[8] "Rigidly limiting the bread intake of the diabetic patient automatically eliminates a large amount of thiamin from the diet. . . .There is some evidence of interference with normal riboflavin utilization during catabolic episodes."[9]
8. Duncan G. G.: Diseases of Metabolism 4th edition W. B. Saunders, Philadelphia, 1959, p. 812. 9. Pollack, H.: Am. J. Med. 25:708 (Nov.) 1958.

FOR FULL INFORMATION SEE YOUR SQUIBB PRODUCT REFERENCE OR PRODUCT BRIEF.

Continued from page 90

using repeated high concentration oxytocin intravenous infusions to achieve this end.

Kinch, R. A. H.: Management of the Prolonged Retention of the Dead Fetus in Uterus. *Canadian Medical Assn. J.* 85:932, Oct. 21, 1961.

FIVE-YEAR SURVIVAL AFTER RESECTION FOR CANCER OF THE STOMACH

This paper is concerned with observations on 225 patients with cancer of the stomach observed over a period of 10 years. Laparotomy was performed in 167 of these patients and resection in 90. Lymph node metastases were observed in 66% of the patients. The primary mortality in the group of patients undergoing resection was 8.9%. Twenty-three percent of the patients who underwent resection survived for five years. The five-year survival was 45.7% in those without and only 6.7% in those with metastases to the lymph nodes.

Schersten, T.: Five-Year Survival After Resection for Cancer of the Stomach. *Nordisk Medicin* 66:1018, July 20, 1961.

LONG-TERM ANTICOAGULANT THERAPY IN MYOCARDIAL INFARCTION

Of 316 patients with acute myocardial infarction who had been treated with anticoagulants in four medical clinics in Copenhagen, one group (145 patients) continued the anticoagulant treatment, while the other group (117 patients) received placebos. Both groups were under medical supervision on an ambulatory basis. The period of observation ranged from one to five years. The number of recurrences of myocardial infarction seemed to be lower in the group treated with anticoagulants than in that receiving placebos, but the difference between the two groups was statistically significant only in the patients under 60 years of age. The rate of survival, however, was continuously greater in the group treated with anticoagulants. Cerebral thrombosis occurred in seven patients of the placebo group and in none of the coagulant-treated group during four years of observation. Hemorrhagic complications were observed in 86 of the patients treated with anticoagulants. Although no death resulted from these hemorrhages, they necessitated admission to hospitals in 26 cases.

Harvald, B., Hilden, T., Letman, H., et al.: Long-Term Anticoagulant Therapy in Myocardial Infarction. *Ugeskrift for Laeger* (Copenhagen) 123:983, July 22, 1961.

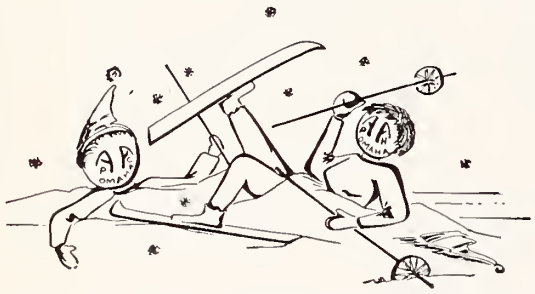
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Catz, B., Russell, S.: Myxedema with Shock and Coma, *Arch. Internal Med.* 108:407, Sept., 1961.



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(One of a series of articles prepared by Blue Cross-Blue Shield)

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Unlike many of our competitors, we are not directing our enrollment efforts primarily at younger persons and good risks. Our membership is representative of all age groups in a proportion that matches the proportion of the age groups to the total population. Based on our research, the value of the benefits given is greater than is available from any other source, except from the State Department of Public Welfare.

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Deaths

Archie D. Erehart, M.D.

Dr. Archie D. Erehart, Anderson eye-ear-nose specialist for 40 years, passed away Nov. 11 at the age of 66.

A graduate of the I.U. School of Medicine Class of 1924. Dr. Erehart was a World War I veteran and member of the American Legion and Masonic Lodge.

Vierl C. Griffis, M.D.

Dr. Vierl C. Griffis, Richmond, a practicing physician for 55 years, passed away Nov. 8 at the age of 78.

Dr. Griffis practiced in Richmond for 42 years, and for many years was in general practice. At the time of his death he was the anesthetist for Richmond State Hospital and an honorary staff member of Reid Memorial Hospital.

Dr. Griffis graduated from Louisville Medical School in 1906; he served in the Army Medical Corps during World War I, and for many years was physician for International Harvester Corp.

Roy T. Hynes, M.D.

Dr. Roy T. Hynes, 62-year-old Indianapolis physician, passed away Nov. 10 at his home near Carmel, Ind.

Dennis W. Matthews, M.D.

Dr. Dennis W. Matthews, North Vernon general practitioner since 1927, passed away Nov. 14 at the age of 80.

Dr. Matthews graduated from Louisville Medical School in 1903 and had practiced in other communities before going to Mt. Vernon.

Julio Samper, M.D.

Dr. Julio Samper, 72, former Indianapolis surgeon, passed away Oct. 27 at Mt. Kisco, N. Y. He had practiced in Indianapolis from 1913 to 1934.

Charles F. Voyles, M.D.

Dr. Charles F. Voyles, retired gastroenterology specialist who had practiced in Indianapolis since 1906, passed away Nov. 12 at the age of 89.

A graduate of the Kentucky School of Medicine in 1897, Dr. Voyles had studied in Vienna and London, and at Mayo Clinic in the early 1900's. He practiced in Indianapolis 52 years before retiring in 1958. ◄

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County News

Allen

The annual Medical-Civic dinner, sponsored by the Allen County Medical Society, for physicians and local civic leaders, was held Nov. 21 in Fort Wayne.

Clark

Mr. Byron Laird, director of the Indiana University Jeffersonville Extension discussed a medical assistants training program at the Oct. 17 meeting of the Clark County Medical Society. Twenty-four doctors attended.

Delaware-Blackford

New officers recently installed by the Delaware-Blackford Medical Society are Drs. Fletcher McDowell, president; Stewart Brown, president-elect; Donald Taylor, secretary and J. L. Cullison, treasurer.

Also, Drs. John Hurley and Guy Owsley, executive committee; Drs. Thomas M. Brown, Glynn Rivers and Ed Wierzalis, delegates; Drs. Donald Taylor, Charles Alvey and Dean Jackson, alternate delegates; and Dr. Jackson, board of censors.

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Floyd

Judge Ralph Hamill spoke on malpractice at a joint meeting of the Floyd County Medical Society and Floyd County Bar Association Oct. 13 at New Albany.

Fountain-Warren

Members of the Fountain-Warren Medical Society entertained their wives, all area pharmacists and attorneys and their wives at a dinner held Nov. 9 in Williamsport. There were 73 persons present.

Huntington

Sixteen members of the Huntington County Medical Society heard Dr. Eugene Senseny, Ft. Wayne, discuss Diseases of the Colon at their Nov. 7 meeting in Huntington.

Lake

Speakers at the Nov. 8 meeting of the Lake County Medical Society were Dr. Fred Lawrence, Bahr Treatment Center, "The Outpatient Treatment of Alcoholism;" and Dr. J. Whitney Kelley, Creighton University, "Anxiety States Preceding Mental Illness." There were 125 members present.

Montgomery

Dr. Fred Blix is the newly-elected president of the Montgomery County Medical Society. Assisting him are Drs. Stephen J. Alexander, vice-president; Wesley E. Shannon, secretary-treasurer; J. M. Kirtley, delegate; and F. N. Daugherty, alternate delegate.

Owen-Monroe

Drs. Joseph Milan and C. R. McIntire spoke on Cancer of the Breast at the Nov. 16 meeting of the Owen-Monroe Medical Society. Thirty members attended.

Perry

Dr. Fred Smith reported on the 112th ISMA Convention to members of the Perry County Medical Society at their Nov. 7 meeting.

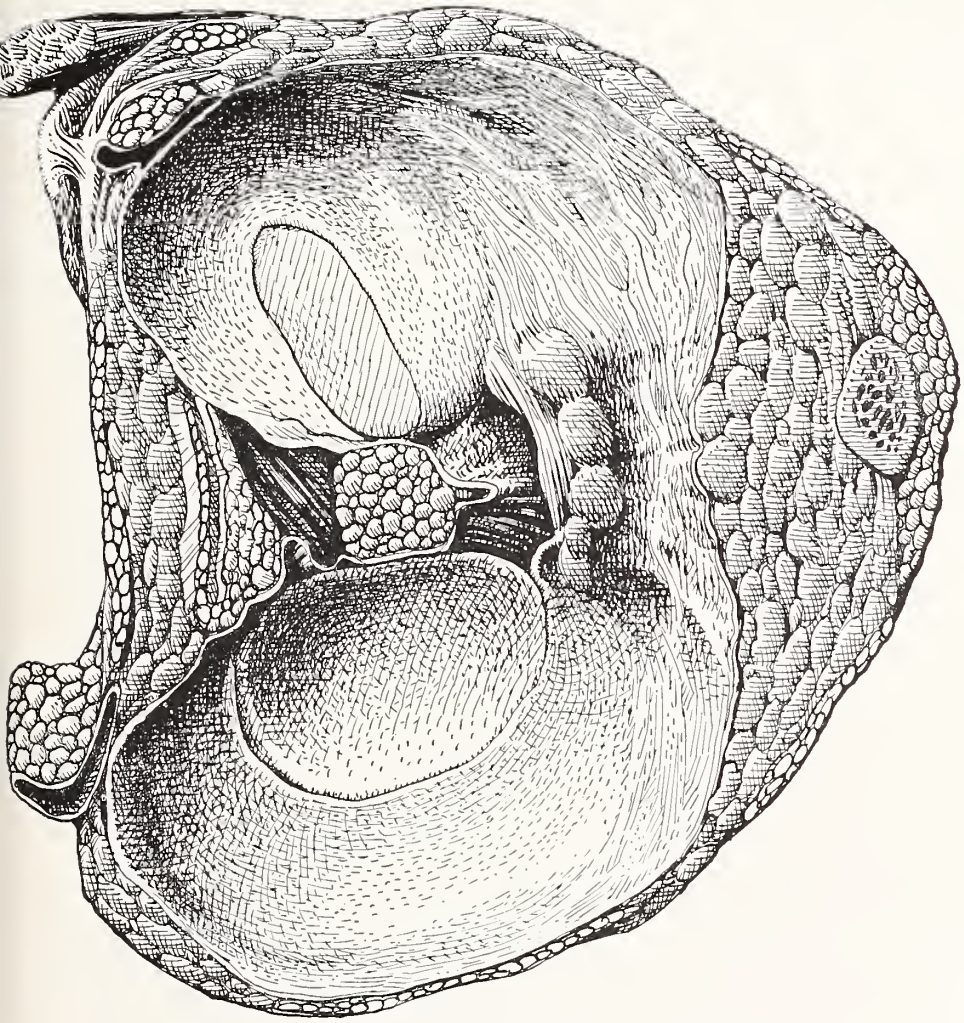
Shelby

Drs. Clyde Culbertson and Andrew Offutt, Indianapolis, discussed live polio vaccine—its implications to the practicing physician—at the Nov. 1 meeting of the Shelby County Medical Society. Eighteen members and four guests heard the program. ◄

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Association News

EXECUTIVE COMMITTEE

November 18, 1961

Roll call showed the following present: Don E. Wood, M.D., chairman; Wendell E. Covalt, M.D.; Harry R. Stimson, M.D.; Maurice E. Glock, M.D.; John M. Paris, M.D.; Irvin W. Wilkens, M.D., and James A. Waggener, executive secretary.

Membership Report

Number of members as of Dec. 31, 1960		4,310
1961 members as of Oct. 31, 1961:		
Full dues paying	3,667	
Residents and interns	197	
Council remitted	40	
Senior	376	
Honorary	3	
Military	37	
Total 1961 members as of Oct. 31, 1961		4,320
Number of members as of Oct. 31, 1960		4,291
Gain over last year		29
Number of AMA members as of Dec. 31, 1960		4,168
Number of AMA members as of Oct. 31, 1960		4,151
Total 1961 AMA members as of Oct. 31, 1961		4,199
Gain over last year		48
1961 AMA members: Dues paying	3,542	
Exempt but active	657	
	4,199	
Number who have paid state dues but not AMA dues for 1961		121

Building Matters

The chairman gave a progress report on the construction of the building.

Headquarters Office

The secretary gave a report on the counties not represented at the final meeting of the House of Delegates in October, and by consent he was instructed to make up a list, by counties, of the delegates who were registered for both the first and last meetings of the House of Delegates.

The secretary reported that he had received from the American Medical Association a listing of the membership of the AMA councils and committees and the length of terms and the method of election. Upon motion of Drs. Glock and Paris the secretary was instructed to duplicate this list and send a copy to the delegates and alternate delegates to the AMA and to members of the Executive Committee and the Council.

The secretary presented two Medicare contracts for signature, one covering the final audit for March 31, 1961, and the other dealing with reimbursement for advertising costs. On motion of Drs. Glock and Covalt the president was authorized to sign these on behalf of the Association.

Treasurer's Office

The statement of Income and Expense for the month of October and the treasurer's report were approved on motion of Drs. Paris and Covalt.

Legislative Matters

The chairman of the Executive Committee reported on the McNamara hearings and other national legislative activity.

Organization Matters

Resolutions for presentation to the AMA House of Delegates at the Denver meeting were approved by consent and the secretary was instructed to forward these to the AMA.

On motion of Drs. Glock and Paris the secretary also was instructed to forward to the AMA the resolution which was adopted by the Indiana House of Delegates at its October meeting dealing with the American College of Surgeons.

A resolution from the State of West Virginia and additional resolutions received from the American Medical Association for consideration at the Denver meeting were read for the information of the committee.

A letter received from the American Medical Association notifying the Indiana State Medical Association that the name of Dr. Neal Baxter of Bloomington was to be presented for election to the Committee on Aero Space Medicine was approved by consent.

A letter from the women physicians, expressing appreciation to the Association for the arrangements for their annual dinner during the recent state meeting, was accepted by consent.

A letter from the American College of Chest Physicians expressing their appreciation for the cooperation of the Indiana State Medical Association in holding the "Fireside Conference" was accepted by consent.

A letter from the Commission on Medical Economics and Insurance outlining the recommendations of this commission for action at a special meeting of the House of Delegates on the subject of Blue Shield offering a no-fee schedule contract was reviewed and upon motion of Drs. Stimson and Glock the commission was given permission to send their recommendations to the delegates and the component societies of the Association for their information.

Dr. Wood reported on his attendance at the meeting of the Medical Advisory Committee to the Blue Cross Board, and upon motion of Dr. Glock the president was requested to write a letter of appreciation to the five doctors comprising this committee, expressing the appreciation of the Association for the fine work they are doing and requesting them to organize and appoint a chairman of their own group and act as a liaison and report to the Council of the Association.

Correspondence between the Indiana Pharmaceutical Association and the State Teachers Association was reviewed for the information of the Committee.

A letter from the Commission on Special Activities stating they did not feel it necessary for the Association to contribute to Health Careers, Inc., was read and concurred in by the Executive Committee, on motion of Drs. Glock and Covalt.

A letter from Hollowell and Hamill to Professional Insurance Administrators, Inc., was read for the information of the Committee.

A letter from Bettye J. Fisher, immediate Past-President of the American Association of Medical Assistants, commending Dr. Robert Allyn Royster of Evansville to the Indiana State Medical Association, was read for the information of the Committee.

A letter from Dr. Frank Green, addressed to the president of the Association, offering his assistance in developing a plan for the Indiana National Bank to administer and manage the Student Loan Fund of the Association, was read and upon motion of Drs. Glock and Covalt Dr. Green is to be invited to continue his investigation of this plan and to appear before the Executive Committee at its next meeting for the purpose of reporting on his findings.

The secretary reported on the doctor draft and the action of the House of Delegates of the State Association asking the president to establish a committee to assist Selective Service in the procurement of physicians. The president will appoint such a committee.

Upon motion of Drs. Glock and Covalt the secretary is to look up the rules concerning the payment for medical defense.

Future Meetings

Medical Self Help Training Workshop, Battle Creek, Dec. 4-7, 1961. On motion of Drs. Glock and Paris Dr. Offutt is to be requested to name Dr. J. V. Carter of Tipton as a delegate to this meeting.

Second National Conference, Joint Conference on Aging, to be held in Chicago, Dec. 15 and 16. On motion of Drs. Glock and Paris a representative from the Commission on Aging is to be requested to attend.

U. S. Chamber of Commerce Public Affairs Conference, Washington, D. C., Jan. 24 and 25, 1962. Action was deferred on this matter.

AMA Interim Session, Denver, Nov. 27-30, 1961. By consent it was agreed that Mr. Palmer should also attend this meeting.

There being no further business the Committee adjourned to meet again upon the call of the chairman, but not later than Jan. 13, 1962. ◄

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February 1962

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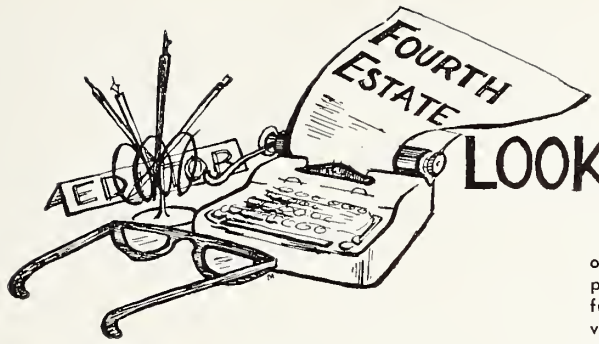
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LOOKS AT MEDICINE

This section of THE JOURNAL is devoted to the presentation of opinions which appear on the editorial pages of the public press, and which are of interest to the medical profession. Its function is to review comments which may be favorable or unfavorable to medicine. Members are invited to submit editorial clippings for this column.

Aiming at Better Medicine

The Pharmaceutical Manufacturers Association has taken a thoughtful and sound position on revision of Federal laws and regulations applying to the drug industry. Eugene N. Beesley, president of Eli Lilly and Company and chairman of the board of the association, made an excellent presentation of this position recently to the Senate subcommittee on antitrust and monopoly.

That subcommittee, headed by Senator Estes Kefauver of Tennessee, last year conducted sensational hearings on drug prices and profits, and now has been conducting hearings on proposed new legislation.

The association gave support to proposals for strengthening Federal inspection of drug manufacture, in fulfillment of the role of establishing and maintaining minimum production and quality standards. To this end it indorsed proposals for registration of drug manufacturers, requiring evidence that a new drug does what it is supposed to do as well as being safe, mandatory periodic inspection of manufacturing plants and increase of inspection powers and staff.

At the same time it cautioned against needless complexity or duplication of requirements, and against requirements which would increase the costs or limit the introduction of new drugs or would interfere with the physician's prerogative to decide what drug should be used for a particular ailment or patient.

The most cogent section of Beesley's statement dealt with the patent system. The Kefauver subcommittee has proposed, for the drug industry only, special limitations on the obtaining of patents, compulsory licensing of patents, and prohibition of prepatent agreements by which two or more companies arriving simultaneously at the same discovery arrange by negotiation—instead of a court fight—for one to obtain the patent and the others to use it under license.

The association's position, simplified, is that protected patent rights either do or do not provide stimulus and incentive for invention and discovery. If they don't they should be abolished. But if they do, the field of medicine should continue to have these benefits undiminished.

Beesley pointed out that more than four million Americans living today would be dead if the nation's mortality rate had remained at the level of 25 years ago. He cited fabulous reductions in the death rates for some of the more common diseases. He noted that the rate of release of patients from mental hospitals has increased 50% in the last five years.

The part played by new drugs in these achievements is commonly recognized. But here is a striking statement: "Seventy percent of all prescriptions filled in 1960 could not have been filled in 1950 *because these medicines had not then been discovered.*"

The drug makers are concerned that this process of new discovery, with its remarkable benefits, be continued. We fear the Kefauver subcommittee has centered its attention on prices and profits and has lost sight of advancement in medicine. The maintenance of research laboratories and

Continued on page 154

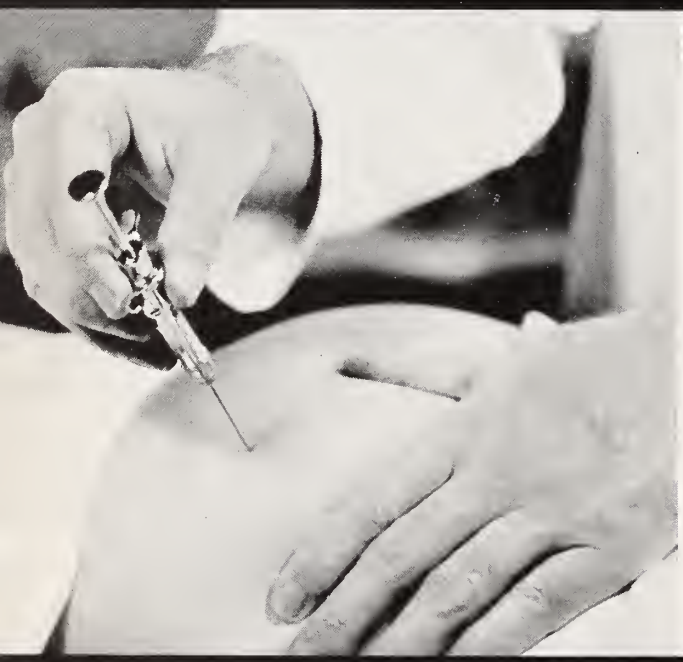
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1. R. Lamb and E. S. Maclean, Penicillin V—A Clinical Assessment After One Year, *Brit. M. J.*, July 27, 1957, p. 191-193. 2. J. I. Burn, M. P. Curwen, R. G. Huntsman and R. A. Shooter, A Trial of Penicillin V, *Brit. M. J.*, July 27, 1957, p. 193. 3. J. Macleod, Current Therapeutics, *The Practitioner*, 178:486, April, 1957. 4. W. J. Martin, D. R. Nichols and F. R. Heilman, Observations on Clinical Use of Phenoxymethyl Penicillin (Penicillin V), *J.A.M.A.*, p. 928, March 17, 1956.

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Continued from Page 151

activities is costly. It will not be continued unless these costs can be recovered. They are recovered now out of the profits from sale of the resulting drugs. Surely this is the most proper and fair way to do it.

Advancement thrives on incentive to push ahead and discover. It would be tragic to destroy that incentive, by government meddling, in the field of medicine, which means so much to human health and happiness.—*Indianapolis Star*, Dec. 16, 1961.

Texas Insures Its Aged

Forecasts are for sharp controversy in Congress next year over health care for the aged. The Kennedy administration is expected to press for its bill to handle it through Social Security. But meanwhile, another state is about to start operating under the Kerr-Mills bill enacted in 1960. It stirs the question of whether further action should be considered by Congress before a fuller test is had of the Kerr-Mills bill.

The state about to take advantage of the 1960 law is Texas. Starting on Jan. 1, 220,000 persons on that state's old age assistance rolls will become eligible for hospital and surgical care.

What makes the Texas program unique is that it will insure health benefits to the OAA group through a private insurance company, the Blue Cross. As in other states taking advantage of the legislation, the federal government will pick up 75% of the annual cost, with the balance coming from Texas state funds. The program is expected to cost about $24 million a year.

Proponents of the Texas plan—and the Kerr-Mills concept in general—say it is an example of bringing medical care to the most needy aged without resorting to "socialized medicine." Opponents call it an inadequate answer to the pressing medical needs of oldsters and one which makes no provision for those who are not actually on the welfare rolls.

In addition to providing for increased federal grants for old-age assistance programs, the Kerr-Mills law offers federal funds—on a matching basis—for a new program for the "medically needy." These are defined as persons whose incomes are too high to allow them to qualify for OAA but not sufficient to cover their medical expenses. During 1962, the number of states operating under this program is expected to attain the halfway mark. (Indiana's new law on this becomes effective Jan. 1.) More than half the states will have expanded OAA programs.

Thus while medical care coverage under the Kerr-Mills law cannot be called comprehensive at present, it is receiving fairly rapid acceptance by the individual states. This fact should remove much of the feeling of urgency which in 1960 marked efforts to get legislation on this subject through Congress. It is reasonable to argue that the law ought to have a more extensive test, as to its ability to meet the need, before health care is grafted onto the Social Security system.

The need for assisting many of the aged is obvious. Health protection on a voluntary basis has expanded considerably in the United States. However, there are strong indications that this protection is weakest where it is most needed.

For example, the U. S. National Health Survey presents data showing—not surprisingly—that the lower a family's income, the smaller proportion of its hospital bills which will be covered by insurance. Use of hospital services also is about a third higher among those with insurance as compared with those who have none.—Gary *Post-Tribune*, Dec. 27, 1961.

"Only the Beginning"

A few weeks ago Health, Education and Welfare Secretary Ribicoff said he was working on a "great living program of human renewal" which would help more of the needy to become self-supporting and reduce the number of people on relief rolls. And he said the program might cost more than the current relief program, but that as welfare rolls were pared eventually the cost would be less.

Well, what the Secretary describes as "only the beginning" of his department's reforms has been announced, and it's going to cost more, all right— some $17.3 million

FOURTH ESTATE

Continued

more during the next fiscal year. The states will, the Secretary makes it plain, share half the added cost. In order to carry out the welfare plans the states will have to increase the number of their welfare workers—or else. For if the states do not comply with the Federal department's new regulations, Secretary Ribicoff says bluntly, "we cut off their money."

Rarely has it been made more plain just who is calling the tune for state welfare programs. And rarely have the strange ways of Federal bureaucracy been more clearly exposed. For only a bureaucracy could conceive of adding more employes and spending more money to bring about a reduction in the number of people on relief.

If these welfare reforms are "only the beginning," it is interesting to speculate what will be the costs of the whole "great living program."—*Wall Street Journal*, Dec. 19, 1961.

About Our Cover

Willem Einthoven (1860-1927) a Dutchman born in Java, eldest son of an assistant municipal physician, was one of the great pioneers of electrocardiography.

Einthoven became a professor in 1885 at the age of 25, and from that time until his death 42 years later he taught at the University of Leiden. A gifted and dedicated scientist, he was also a man of wide ranging interests, a sportsman, and an avid student of the humanities—history, music and Latin.

In 1893, using the capillary electrometer invented in 1873 by Lipman, Einthoven showed that to obtain a true reading with this instrument it was necessary to make physical and mathematical corrections to produce curves identical to those to be obtained in the future with more advanced and sensitive apparatus. It was at this period of his work that Einthoven applied the letters P, Q, R, S, T and U to designate the different waves which make up the electrocardiogram, the terminology still used today.

Realizing that the capillary electrometer was restricted as to practicality and accuracy, Einthoven next sought to devise a machine that would produce reliable curves without corrections. His first published description of this machine, his string galvanometer, was given in 1901 in a paper titled "A New Electrocardiograph." Results with the usage of this machine were given three years later, in a paper called "The String Galvanometer and the Human Heart."

Einthoven continued his research into the phenomena and mysteries of the human heart, as revealed by the electrocardiograph, studying both the healthy and the diseased heart. He observed the changes created in the electrocardiogram by such conditions as right or left hypertrophy, even the changes due to congenital defects and disorders. Working with Wieringa and Snijders, he described, for the first time, the third heart sound.

The 1924 Nobel Prize for Physiology and Medicine was awarded to this great Dutchman, an honor that he richly deserved.

The photograph (circa 1910) reproduced on our cover of Willem Einthoven and his original galvanometer was loaned to us through the courtesy of the Cambridge Instrument Company, New York City.—M.E.R.

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1. Clark, T. E., and Jochem, G. G.: Angiology **11**:361 (Aug.) 1960.

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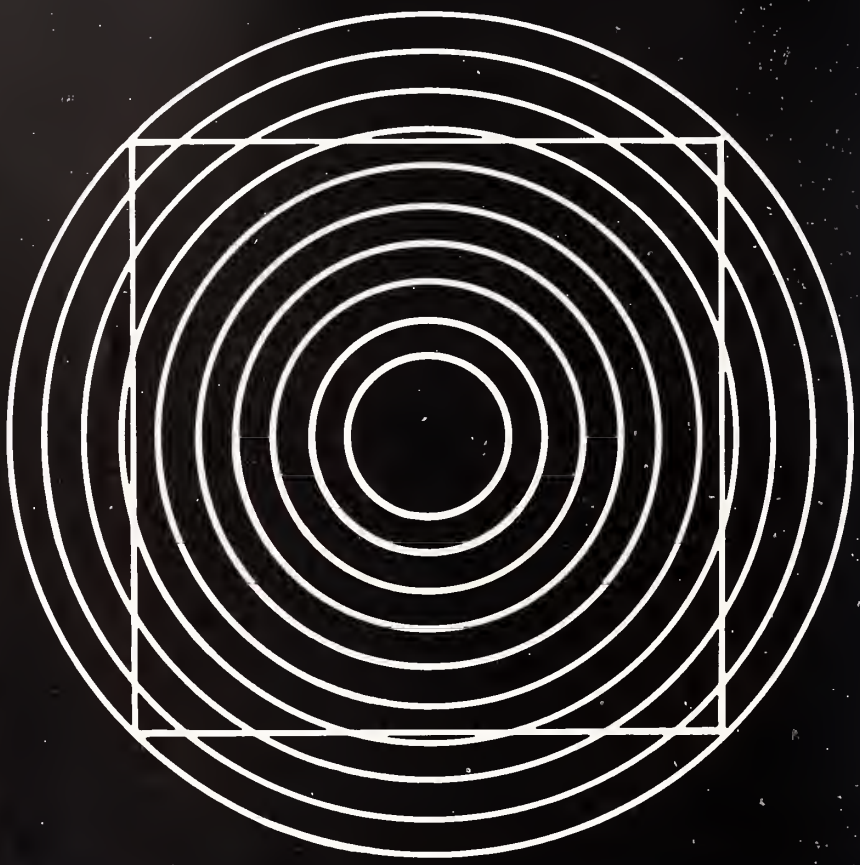
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1. Griffith, R. S.: Antibiotic Med. & Clin. Therapy, 7:129, 1960.

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The Journal of the INDIANA STATE MEDICAL ASSOCIATION

Supervised by THE COUNCIL

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Heart Issue

Acquired Pulmonary Hypertension with Right to Left Shunt due to Repeated Pulmonary Emboli

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EDWARD F. STEINMETZ, M.D.
*Indianapolis**

WITH THE ADVENT OF cardiac catherization and ancillary diagnostic tools, our understanding of acquired and congenital heart disease has advanced markedly. This statement is especially applicable to the problem of pulmonary hypertension. The purpose of this report is to present a patient with an important but infrequently recognized form of pulmonary hypertension complicated by a right to left shunt, the latter diagnosed with the use of the indicator-dilution technic.

Case Report

The patient was a 42-year-old housewife whose illness dated back to 1945, when at the age of 26, she first experienced episodes of leg pain. Local physicians diagnosed the condition as recurrent thrombophlebitis. From 1945 to 1957 there were approximately eight such attacks, which were sometimes accompanied by hemoptysis. One bout of hemoptysis prompted the use of bronchoscopy. No pathology was found. She noted the onset of dyspnea with exertion in 1950 and for the first time in her life noticed that her fingers and lips became dusky when she exercised. In 1954, systemic hypertension was discovered for which no specific etiology could be found despite a thorough investigation. Digitalis and elastic stockings were prescribed in 1957, because of increasing dyspnea on exertion and persistent dependent edema. At no time in her life was the patient ever told of a heart murmur nor did any doctors make note of one.

She was first referred to Marion County General Hospital in 1959, with an acute bout of thrombophlebitis, first in one and then the other thigh. The physical examination at that time revealed cyanosis of the lips and digits as well as unquestionable evi-

* From the Robert M. Moore Heart Clinic, Marion County General Hospital and the Department of Medicine, Indiana University School of Medicine, Indianapolis.

Supported by the Herman C. Krannert Fund of the Indiana Heart Association, Indiana State Board of Health and the National Heart Institute (H.T.S. 5363).

Dr. Feigenbaum is a Research Fellow of the National Heart Institute.

dence of acute thrombophlebitis. The cardiovascular examination exhibited a precordial heave along the left sternal border and a loud pulmonic second sound. Her blood pressure was 168/120. The lungs were clear, but the liver edge was 3 finger breadths below the right costal margin. There was only minimal evidence of chronic venous insufficiency. The chest x-ray (Figure 1) showed a prominent pulmonary outflow tract and a slightly increased transverse diameter of the heart. The EKG (Figure 2) was interpreted as consistent with right ventricular hypertrophy.

Anticoagulant therapy was instituted. However, after a week, because of technical reasons, the anticoagulants were discontinued. The leg pain gradually subsided only to be followed in three weeks by an acute attack of chest pain with hemoptysis. Pulmonary embolism and infarction was the clinical impression and inferior vena caval ligation was seriously considered. The referring physician felt that since she had never had an adequate course of long term anticoagulant therapy, this form of management should be attempted prior to vena caval ligation. The patient was discharged to the care of her local doctor and anticoagulants were successfully administered as an out-patient, this time for an indefinite period.

The patient was next referred to this hospital in September 1961 for cardiac catheterization. She had stopped her anticoagulants but had no further recurrence of leg pain. Her chief complaint now was increasing dypsnea on exertion to the extent that she quit her job as a bank clerk.

The patient was somewhat dyspneic at rest and certainly looked worse than two years earlier although there was no marked change in physical findings, chest x-ray or EKG. There was some reluctance to catheterize the patient because of her relatively poor clinical condition. Thus, the decision was to do as simple a procedure as possible attempting to gather the most information with a minimum of manipulations and in a minimum of time. The catheterization revealed marked pulmonary and systemic hypertension (Figure 3). The pulmonary cap-

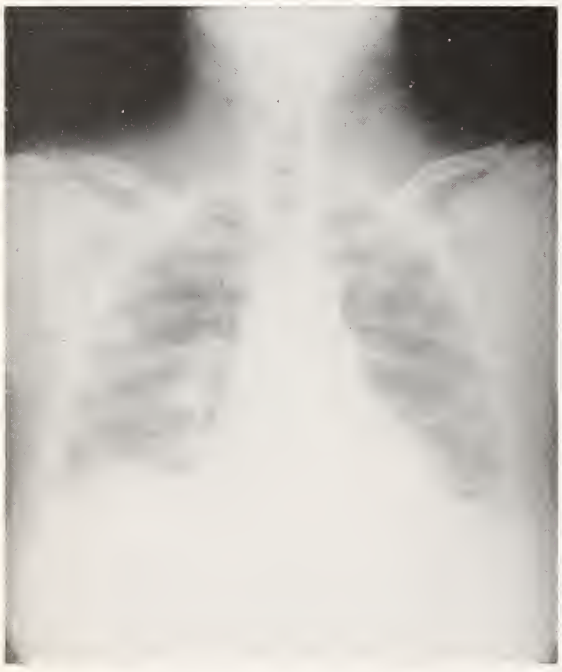


FIGURE 1
CHEST X-RAY taken in 1959 shows a prominent pulmonary outflow tract and slight increase in cardiac diameter.

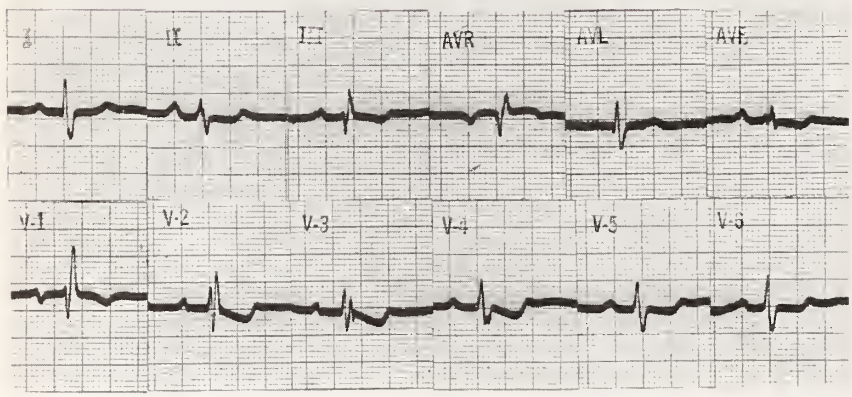


FIGURE 2
ELECTROCARDIOGRAMS reveal an incomplete right bundle branch block consistent with right ventricular hypertrophy.

illary wedge pressures were unsatisfactory and direct left atrial pressures were not attempted because of her clinical condition. The brachial artery oxygen content was 17.53 Vol.% or 64% saturation and on 100% oxygen went up to only 19.37 Vol.% or 71% saturation.

Indicator dilution studies were done in an attempt to substantiate the existence of a shunt as well as to localize one if present. The indicator used was cardio-green dye. Blood was withdrawn from the sampling site at a constant rate with the use of a Harvard Apparatus power syringe. The concentration of dye in the blood was determined by a Gilford densitometer and continuously recorded on a Texas Instrument rectilinear recorder. The dye was injected at variable locations on the right side of the heart and sampled at the brachial artery (Figure 4). These studies clearly demonstrated a right to left shunt at the atrial level.

Discussion

This patient exhibited many interesting and important features: (1) recurrent pulmonary emboli, (2) pulmonary hypertension, (3) development of right to left shunt and (4) the use of the indicator-dilution technic in diagnosing this shunt.

The frequently fatal entity of acute massive pulmonary embolism and infarction is well recognized by all practicing physicians; however, the more subtle condition of repeated small pulmonary emboli with or without infarction is not as well understood and thus frequently overlooked. Such emboli may manifest themselves only as a mild transient episode of syncope, palpitation, chest pain, dyspnea, transient fall in blood pressure, hemoptysis, or no symptoms at all. These patients may only present with idiopathic pulmonary hypertension.[5] When the condition progresses to the stage of pulmonary hypertension and cor pulmonale, the most prominent symptom, as in our patient, is progressive dyspnea, at first primarily with exercise. Apparently these patients have a very high exertional breathing requirement. They may have double the minute ventilation necessary for a given rate of 0_2 consumption.[4] This symptom is in turn aggravated by any undersaturation of the arterial blood-oxygen. These patients

CATHERIZATION PRESSURES

	Systolic	Diastolic	Average
Right Atrium			18 (5)*
Right Ventricle	80 (30)	15 (0)	30 (15)
Main Pulmonary Art.	85 (30)	35 (15)	40 (20)
Brachial Art.	200 (120)	130 (80)	155 (90)

* Figure in parenthesis represents normal pressure.

FIGURE 3

RESULTS of right heart catheterization showing both systemic and lesser circulation hypertension.

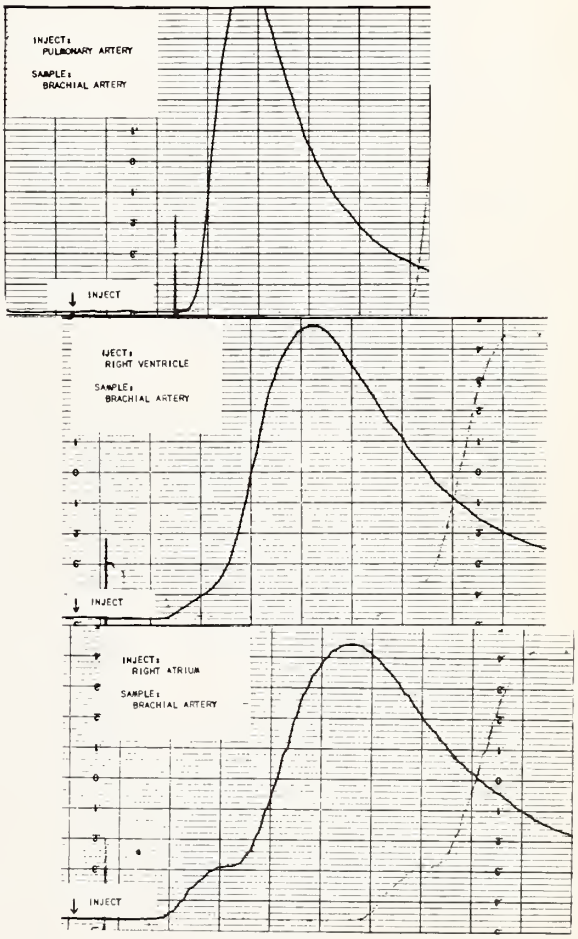


FIGURE 4

TIME CONCENTRATION curves utilizing cardio-green dye, as recarded fram the brachial artery having injected the dye in the pulmanary artery, right ventricle, and right atrium respectively. The arraws note the time af injectian and are lined up vertically ta show the differences in appearance time, the interval between time af injectian and the first appearance af dye at the sampling site. (Far details see text.) Nate—the dark vertical line at the beginning af the curves and the faint double image after the main tracing are artifacts.

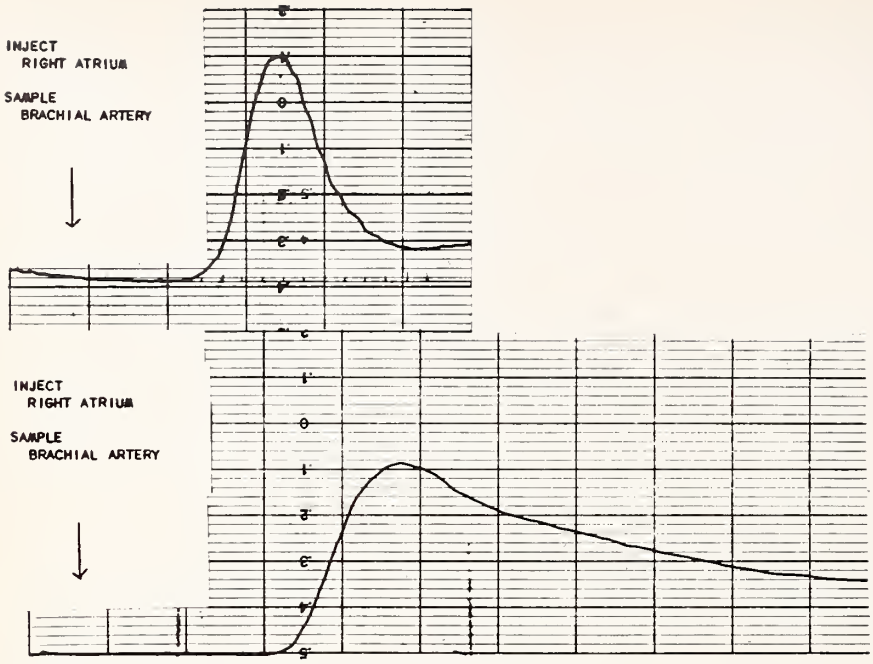


FIGURE 5
TIME CONCENTRATION curves of a normal individual (upper tracing) and a patient with a left to right shunt (lower tracing). The arrows indicate time of injection.

may even complain of paroxysmal nocturnal dyspnea though there is no congestion of their pulmonary vasculature.[4] Realizing these features of the disease, it is not difficult to understand why our patient had such marked symptoms and such few physical findings. The chest x-ray in such cases may show an enlarged pulmonary outflow tract (Figure 1), and the lungs may reveal residua of old infarcts and/or relatively clear avascular lung fields. The EKG may give evidence of cor pulmonale if present.[6]

Cyanosis is frequently seen in this disease. It is usually episodic and occurs with exercise. Part of the cyanosis may be due to maldistribution of blood and air in the lungs so that some areas being perfused are not adequately ventilated.[4] Peripheral cyanosis, due to slowing of blood through the skin, may also be the reason for the dusky appearance of these patients. Occasionally the right atrial pressure is elevated to the extent that a probe patent foramen ovale may be opened and a right to left shunt occurs. We would like to place our patient in this category. Of course an atrial septal defect of the ostium secundum variety cannot be ruled out. However, since the typical auscultatory findings of ostium secundum were never recorded and the clinical picture is somewhat atypical for that diagnosis, we favor the idea that she reversed her flow through a probe patent foramen ovale. Such a situation sets up this patient for "paradoxical emboli," namely emboli originating from systemic veins traveling via the defect into the systemic arterial circulation. Although she never showed any evidence of systemic emboli, it is very tempting to attribute her systemic hypertension to possible renal embolization. This indeed would be difficult to prove.

Detection of the patient's right to left shunt proved to be fairly simple and comparatively innocuous for this severely ill patient. Shunts are usually detected by obtaining oxygen saturations at various locations or with cineangiography. The latter method is certainly not without hazard, and the former would require left heart catheterization to pick up a right to left shunt. A simpler technic presently available employs the use of inert dyes of known light absorption. When injected into a vein; sampling from the arterial side by use of a continuous withdrawal pump through a densitometer, a concentration curve is inscribed representing the time-rate of change of dye in the blood. In the absence of shunting, a normal curve is characterized by a rapid ascent and a fairly rapid return to

the base line (Figure 5, upper tracing). In some cases a second but much smaller curve of recirculation may appear near the bottom of the curve. With intra-cardiac shunting, injection of dye on the venous side while sampling on the arterial side results in two basic types of curves. In left to right shunting, injected dye returns to the venous circulation by-passing the sampling site but also may return to the sampling site earlier than normal. The resultant curve has less magnitude and the last half of the curve reveals a slow gradual descent due to rapid recirculation through the anomalous shunt (Figure 5, lower tracing). When right to left shunting occurs, dye crosses to the arterial side by-passing circulation through the lungs. This early appearance of dye modifies the first half of the curve showing an early ascent of the curve, the magnitude of which depends on the amount of dye shunted. In addition, when the site of injection passes beyond the level of the shunt, the resultant curve appears normal because complete circulation must occur before the effects of shunting occur. Figure 4 represents the present case. Injection into the right atrium reveals a curve typical for right to left shunting while the curve obtained after injection into pulmonary artery appears normal. The curve obtained following injection into the right ventricle also shows an early appearance of dye. This was attributed to regurgitation of dye into the right atrium since right to left shunting at the ventricular level would require pressure in the left and right ventricles to be nearly equal, and our patient's systemic hypertension would have prevented this.

Summary

A patient with a 15-year history of recurrent thrombophlebitis, pulmonary emboli, pulmonary hypertension, and a right to left shunt is presented. The problem of pulmonary hypertension due to repeated pulmonary emboli as well as the interesting complication of an intra-cardiac shunt is discussed. Use of the indicator dilution technic in detecting such shunts is reevaluated.

REFERENCES

1. Barnard, P. J.: Thrombo-embolic primary pulmonary arteriosclerosis. *Brit. Heart J.* 16:93, 1954.
2. Castleman, B., Bland, E. F.: Organized emboli of the tertiary pulmonary arteries. An unusual case of cor pulmonale. *Arch. Path.* 42:581, 1946.
3. Cournand, A.: Some aspects of the pulmonary circulation in normal man and in chronic cardio-pulmonary diseases. *Circulation* 2:641, 1950.
4. Hickam, J. B., Sieker, H. O.: Pulmonary embolism and infarction. *Disease-a-Month*, Jan., 1959.
5. Owen, W. R. et al.: Unrecognized emboli to the lungs with subsequent cor pulmonale. *New Eng. J. Med.* 248:919, 1953.
6. Petch, C. P.: Cor pulmonale from recurrent pulmonary embolism. *Lancet* 1:1346, 1951.
7. Wood, P.: *Diseases of the Heart and Circulation*. J. B. Lippincott, Co., 1956.
8. Wood, P.: Pulmonary hypertension. *Brit. Med. Bull.* 8:348, 1952.
9. Rushmer, R. F.: *Cardiovascular Dynamics*. W. B. Saunders Co., 1961.
10. Broadbent, J. C., Wood, E. H.: Indicator-dilution curves in a cyanotic congenital heart disease. *Circulation* 9:980, 1954.
11. Swan, H. J. C., Wood, E. H.: Localization of cardiac defects by dye-dilution curves recorded after injection of T-1824 at multiple sites in the heart and great vessels during cardiac catheterization. *Proc. Staff Meet. Mayo Clinic* 28:95, 1953.
12. Swan, H. J. C.: Indicator-dilution methods in the diagnosis of congenital heart disease. *Progress in Cardiovascular Diseases* 2:143, 1959. ◄

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Indianapolis

SPATIAL VECTORCARDIOGRAPHY is a method of recording the electrical activity of the heart. Since Waller's[1] original report in 1887 on the "electromotive changes accompanying the heart beat" clinical investigators have attempted to utilize the electrical activity of the heart to aid in clinical diagnosis.

Modern concepts of the electromotive forces of the heart began in 1913 when Einthoven[2] postulated that all of the electrical forces can be visualized as originating from one point, the electrical center of the heart. By using an equilateral triangle he was able to show geometrically that the QRS in each lead could be derived from a single resultant vector having three properties: magnitude, spatial orientation and polarity. These he represented with an arrow, with the arrow tip representing positive polarity. In 1914, Williams,[3] by taking two standard electrocardiographic leads simultaneously, demonstrated the peaks of the QRS complexes did not occur simultaneously. He then divided the QRS into several periods and determined individual vectors for each period. These vectors were plotted using a central isoelectric point as the center. By connecting the vector tips, he demonstrated the path taken by the changing instantaneous cardiac vector during the QRS cycle. The figure thus formed is a loop which starts and finishes at the isoelectric point. This loop can be assumed to represent the sum of all instantaneous vectors throughout the QRS cycle.

Method

Plotting a vector loop from simultaneous electrocardiographic leads requires too much time to be of clinical value. The refinement of the oscilloscope in the late 1930's made possible the direct recording of a vector loop as it occurs by electronically integrating the two component electrocardiographic leads.[4] This is done in the following manner: the cathode ray oscilloscope consists of horizontal and vertical pairs of deflection plates through which an electron beam passes and strikes a phosphorus screen producing a dot. An electromotive force applied to either pair of deflecting plates will cause the dot to be displaced a distance proportional to the voltage applied. When electromotive force is applied to both pairs of plates the motion of the dot reflects the algebraic sum of both forces. The motion of the dot represents a resultant vector having length, orientation and direction. Thus, if an electrocardiographic lead representing the vertical component of the heart's electrical activity is applied, with suitable amplification, to the vertical deflecting plates and a lead representing the horizontal component applied to the horizontal plates, the oscilloscope will integrate the two leads and inscribe a vector loop.

The vector loop of the heart is spatially oriented and therefore cannot be fully rep-

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Research Fellow of the National Heart Institute.

resented in only one plane. In addition to horizontal and vertical components, a sagittal component is needed for correct orientation in space. These three components have been designated by Grishman[5] as A, B, and C for horizontal, sagittal and vertical respectively (Figures 1, 3).

The component leads of the Grishman cube system are derived from the following lead placement: a common electrode is placed at the right posterior axillary line at the level of L1-L2 vertebrae. A second electrode is placed at the left posterior axillary line at the same level. This gives a horizontal (A) component. Another electrode is located on the right posterior shoulder and is used with the common electrode to give a vertical (C) component. An anteroposterior component (B) is obtained by placing a fourth electrode in the right anterior axillary line at the L1-L2 level. Components A and C will give a frontal plane projection, B and C a sagittal plane projection and A and B a horizontal plane projection. The major controversy in the field of vectorcardiography concerns the placement of skin electrodes so as to represent a true

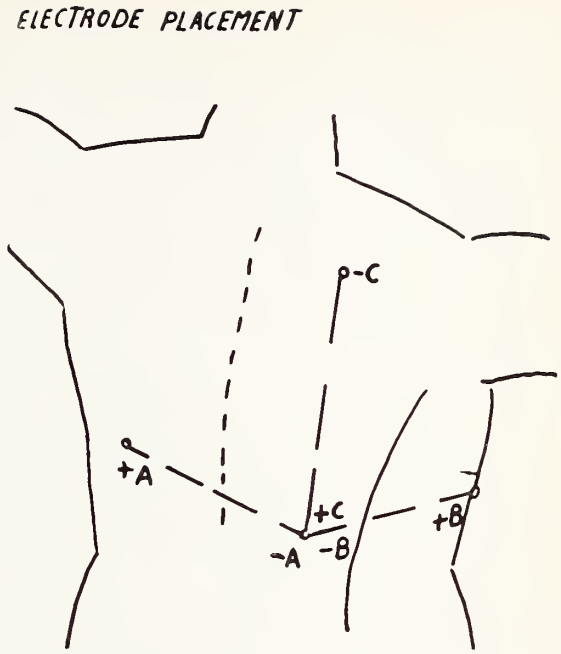


FIGURE 1

LEAD SELECTION as outlined by Grishman. Four electrodes are placed so that three bipolar leads are obtained, each being at right angles to the other two. Each plane requires use of two of the three leads. (Modified from Grishman and Donosa.)

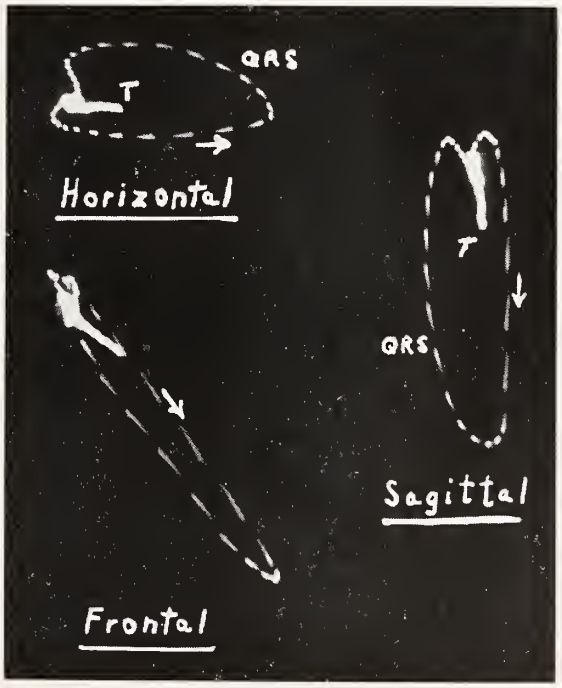


FIGURE 2

NORMAL VECTORCARDIOGRAM. Direction of inscription of the loops may be determined by the comma shaped dots. See text for detailed description.

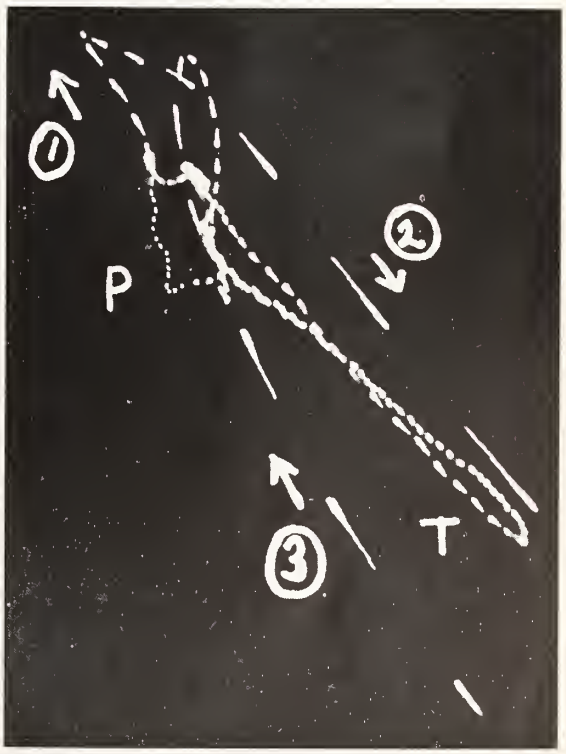


FIGURE 2A

ENLARGEMENT of the frontal plane projection. Most of the QRS loop has been omitted. Details of the P and T loops are easily distinguished, as well as the initial and terminal vectors of the QRS. The sequence of the QRS loop is numbered for clarity.

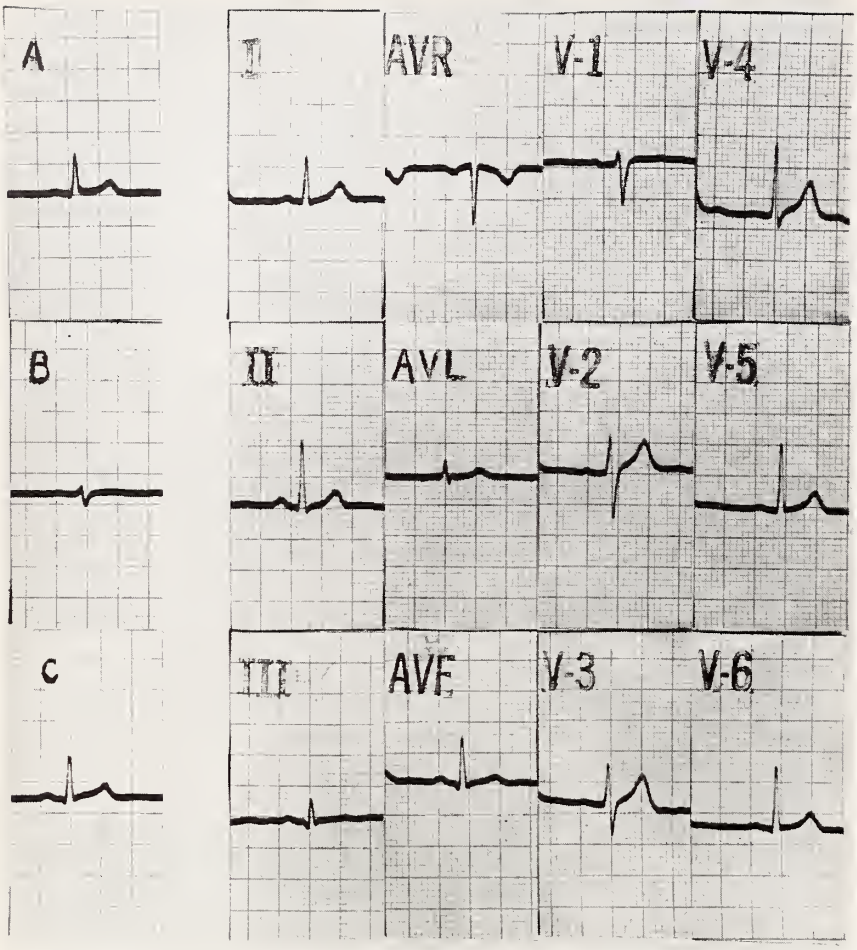


FIGURE 3
STANDARD ELECTROCARDIOGRAM from the subject used in the above vectors. The A, B and C components of the vectorcardiogram are also shown. The small Q waves seen in leads II, III and AVF reflected in the vectorcardiogram as a short, superiorly oriented initial vector in the frontal plane.

image of the cardiac potential. We use the method of Grishman as outlined above for its simplicity and ease of daily clinical applicability. Other more complicated lead systems[6] claim to be technically superior, but the vector loops taken with other systems appear to have only minor differences from the Grishman (cube) system.

Normal Vectorcardiogram (VCG)

The VCG consists of a rapidly inscribed QRS loop followed by a smaller, more slowly inscribed T loop. A much smaller P loop may also be seen preceding the QRS loop. The P, QRS and T loops normally start and finish at a common point which corresponds to the isoelectric line of the electrocardiogram. The QRS loop is oriented to the left, inferiorly, and usually slightly posteriorly (Figure 2). It is evenly inscribed, as shown by the interruptions of the electron beam occurring every 1/400 second. In the horizontal plane, the QRS loop shows an initial deflection anteriorly and to the right caused by septal activation. This will register as an initial positive deflection in right anterior chest leads and negative in left chest leads. The main portion of the loop is then inscribed to the left in a counter-clockwise manner.

The normal VCG in the frontal projection is oriented to the left and inferiorly. It may initially have a small initial deflection superiorly (Figure 2A) which appears in the electrocardiogram as a small Q wave in leads II, III and AVF (Figure 3). The direction of inscription of the loop is variable and often assumes a figure-of-eight appearance. The more horizontally oriented loops are normally inscribed counter-clockwise and the vertically oriented loops clockwise. The sagittal projection, as viewed

from the right side, is inscribed in a clockwise manner.

The T loop is concordant with the QRS loop in all projections. Both the QRS and T loops originate from the same point indicating an isoelectric ST segment. The duration of the QRS loop may be accurately determined by counting the number of interruptions appearing in the QRS loop and multiplying by 0.0025 seconds.

Clinical Value

The VCG's main value is twofold. First, it has become the method of choice for teaching clinical electrocardiology,[7] and secondly it is a valuable adjuvant to clinical electrocardiography by presenting graphically the phase relationships not easily obtainable from clinically recorded electrocardiograms. The vector concept, that all instantaneous vectors of the heart may be represented as a single resultant vector, allows one to treat all electrocardiographic leads as projections of a single electromotive field. A greater normal deviation is seen in the electrocardiogram than the VCG because even minor changes in position of the vector will produce changes of a varying magnitude in the standard lead projections. The abnormal cardiac vectors are easily recognized and can be associated with specific pathological entities. The VCG has thus on occasions made analysis of even complex ECG's a relatively simple matter. However, it is not the purpose of the VCG to replace the electrocardiogram, but rather to supplement it in cases in which the electrocardiogram is not diagnostic, such as obscure infarctions, conduction defects, hypertrophies and positional abnormalities. The VCG is of no value in cardiac arrhythmias.

Summary

A brief discussion of vectorcardiography is presented. Instrumentation and the cube method of electrode placement is discussed.

REFERENCES

1. Waller, A. D.: A demonstration on man of the electromotive changes accompanying the heart's beat. *J. Physiol.* 8:229, 1887.
2. Einthoven, W., Fahr, G., de Waart, A.: Ueber die Richtung and die manifeste Groesse der Potentialschwankungen im menschlichen Herzen and ueber den Einfluss der Herzlage anf die Form des Elektrokardiogramms. *Pflueger's Arch. ges Physiol.* 150:275, 1913.
3. Williams, H. B.: On the cause of the phase difference frequently observed between homonymous peaks of the electrocardiogram. *Am. J. Physiol.* 35:292, 1914.
4. Wilson, F. N., Johnston, F. D.: The vectorcardiogram. *Am. Heart J.*, 16:14, 1938.
5. Grishman, A., Scherlis, L.: *Spatial Vectorcardiography.* Philadelphia, W. B. Saunders Company, 1952.
6. Frank, E.: An accurate clinically practical system for spatial vectorcardiography. *Circulation* 13:737, 1956.
7. Grishman, A., Donoso, E.: Spatial vectorcardiography. *Modern Concepts of Cardiovas. Dis.* 30:687, 1961. ◄

Effects of Abdominal Compression on Ventilation and Arterial Blood of Patients with Chronic Obstructive Pulmonary Emphysema

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IT IS GENERAL clinical experience that patients with emphysema do not have a uniform subjective response to abdominal compression by a binder or emphysema belt. Some patients report marked improvement with the aid of an emphysema belt while others may develop even more respiratory distress.[1,2] Mann, et al.[3] devised an inflatable abdominal binder used in conjunction with an intermittent positive pressure breathing device on subjects with emphysema. They report a subjective improvement in most patients but found no objective measurements of value in predicting which patients would benefit. The present study was undertaken to evaluate the effects of abdominal compression upon ventilation as well as arterial pH, carbon dioxide content of plasma (pCO_2), and oxygen saturation.

Methods

Studies were carried out on eight male patients ages 40 to 65, with the diagnosis of chronic obstructive pulmonary emphysema. This diagnosis was based on physical findings and increased total lung capacity, residual volume, and ratio of residual volume to total lung capacity, as well as radiographic evidence of pulmonary emphysema (Table I). None of the subjects were obese although some did present a relaxed abdominal musculature and pendulous abdomen.

Uniform abdominal compression was produced by seating the subjects immersed in water to the level of the suprasternal notch. This resulted in a pressure at the umbilicus of approximately 50 cm water.

Water immersion differs from simple abdominal compression in several respects. The entire thorax is compressed in a nonuniform manner, the greatest pressure being in the lower thorax. This may alter the relative volume of various portions of the lung and the distribution of inspired air. Compression of the legs, thighs and abdomen causes a shift of circulating blood toward the head and probably a change in perfusion of the lungs.

The subjects were seated comfortably out of water and a sample of brachial artery blood was drawn. Tidal volume, inspiratory capacity, expiratory capacity and vital capacity were measured with a Collins spirometer. Residual volume was determined by the open-circuit helium method of Hickam, Blair and Frayser and a washout curve was plotted on each subject. From the helium washout curve the following characteristics of the slowly ventilated lung space could be calculated: the size or volume (V_s), the ventilation rate ($\dot{V}_s$) and the turnover rate ($\dot{V}_s/V_s$) or the ventilation

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Subject	Age	Height	Weight	TLC (cc)	RV (cc)	RV/TLC %
1.	60	5' 10"	141	7400	4775	64
2.	59	5' 11"	133	8780	6385	73
3.	52	5' 11"	163	7650	3390	44
4.	40	6'	124	7615	5500	72
5.	56	5' 10"	164	5600	4010	72
6.	47	5' 6"	131	6740	2990	44
7.	65	6'	125	9200	5610	61
8.	61	5' 11"	136	5295	3005	57
9.	58	5' 4"	110	4150	2625	63

PATIENTS WITH EMPHYSEMA STUDIED DURING IMMERSION

TABLE I

rate per unit volume.[4] The subject was then immersed in water as described and after 15 minutes of immersion arterial blood was drawn and the ventilatory measurements were then repeated.

The arterial blood oxygen capacity was determined by the method of Drabkin and Austin.[5] Oxygen content and percent oxygen saturation were determined by the spectrophotometric method of Hickam and Frayser.[6] The pH of whole blood was measured with a Cambridge Model R pH meter equipped with an inclosed glass electrode. Measurements were made at room temperature, usually 25-26°C, and the result was corrected to 37°C by Rosenthal's factor.[7] The carbon dioxide content of whole blood was determined by the method of Van Slyke and Neill,[8] and duplicate analyses were required to check within 0.1 Vol. %. The plasma carbon dioxide content was estimated from the blood carbon dioxide content and from the pH, hemoglobin concentration, and percent oxygen saturation by the line chart of Van Slyke and Sendroy.[9] The arterial plasma CO_2 tension was calculated from the pH and plasma content of CO_2 at 37°C by the Henderson-Hasselbalch equation, using a pK of 6.11.[10] In this laboratory, pCO_2 values by this method are reproducible to within ± 1.0 mm Hg.

Statistical analyses of the data were carried out by standard methods.[11]

Results

Table II presents a summary of the ventilatory studies. The minute ventilation of the group as determined from the spirometer tracing did not change with immersion. The total lung capacity was increased in three and decreased in five subjects. There was a slight decrease in the average functional residual capacity and residual capacity of the group. There was no consistent change in the ratio of residual volume to total lung capacity. There were large changes in the volume and ventilation rate of the slowly ventilated lung space in some individuals. The mean ventilation rate of the slow space was somewhat increased and the mean turnover rate also increased, indicating that in general the slow space was better ventilated during immersion. These changes are not statistically significant, however, as some subjects manifested an increase and others a decrease in all ventilatory functions measured.

The effect of immersion on the arterial blood values is illustrated in Table III. There was no significant change in the group means. Individual subjects, however, did manifest a change of pCO_2 and of oxygen saturation of 5-10% of the original value.

The data were analyzed by comparing change in arterial blood with change in each of the measured ventilatory functions.

	Minute Ventilation (L)	Total Lung Capacity (L)	Functional Residual Capacity (L)	Volume of Slow Space (L)	Ventilation Rate of Slow Space $\dot{V}_S$ (L/min)	Slow Space Turnover Rate $\dot{V}_S/V_S$ (L/min/L)
Rest	12.13±1.91	7.07±1.55	5.26±1.5	2.39±1.2	0.116±.093	.081±.094
Immersion	12.0±1.7	6.69±1.63	4.7±1.8	1.93±1.0	0.133±.075	.130±.152

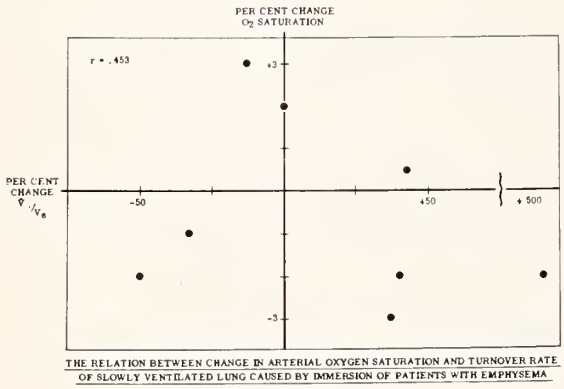
THE EFFECTS OF IMMERSION ON VENTILATION OF PATIENTS WITH EMPHYSEMA--SEATED
(8 Subjects, Mean±S.D.)

TABLE II

	pH	pCO_2	O_2 % Saturation
Rest	7.396±.035	41.9±5.1	91.5±2.9
Immersion	7.400±.035	40.8±5.3	90.9±2.5

THE EFFECT OF IMMERSION ON ARTERIAL BLOOD OF PATIENTS WITH EMPHYSEMA
(8 Subjects, Mean±S.D.)

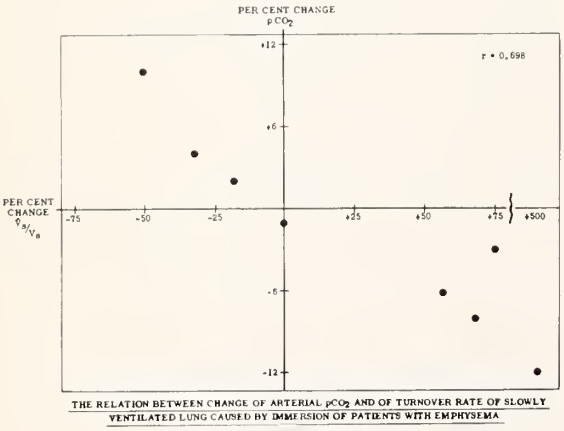
TABLE III



THE RELATION BETWEEN CHANGE IN ARTERIAL OXYGEN SATURATION AND TURNOVER RATE OF SLOWLY VENTILATED LUNG CAUSED BY IMMERSION OF PATIENTS WITH EMPHYSEMA

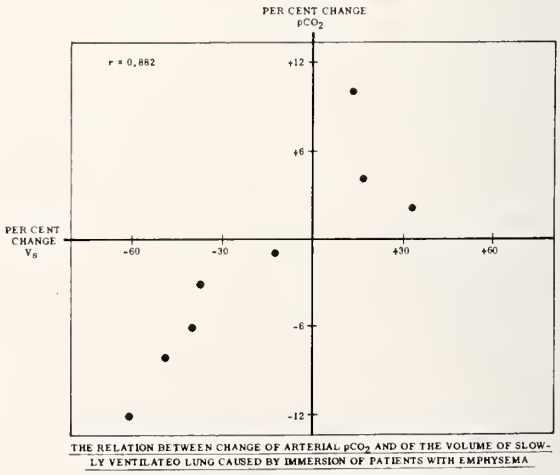
FIGURE 1

There was no significant correlation between the change in oxygen saturation and the change in the total lung capacity, functional residual capacity, or the volume, ventilation rate or turnover rate of the slowly ventilated lung volume (Figure 1). There were, however, significant correlations between the effect of immersion on arterial pCO_2 and its effect on the volume and ventilation rate of the poorly ventilated lung space (slow space). Figure 2 is a plot of percent change of pCO_2 against percent change in turnover rate of the slow space. The correlation coefficient indicates that a distribution such as this would happen one time in 20 by chance. These data show that the greater the increase in the turnover rate of the poorly ventilated lung space the greater the decrease in the pCO_2 during immersion. The relationship between the change of pCO_2 and the volume of the slowly ventilated lung space is shown in Figure 3. In this instance there is a higher correlation between the changes ($p<.01$).



THE RELATION BETWEEN CHANGE OF ARTERIAL pCO_2 AND OF TURNOVER RATE OF SLOWLY VENTILATED LUNG CAUSED BY IMMERSION OF PATIENTS WITH EMPHYSEMA

FIGURE 2



THE RELATION BETWEEN CHANGE OF ARTERIAL pCO_2 AND OF THE VOLUME OF SLOWLY VENTILATED LUNG CAUSED BY IMMERSION OF PATIENTS WITH EMPHYSEMA

FIGURE 3

The greater the decrease in the volume of the poorly ventilated lung space, the greater the decrease in pCO_2 during immersion.

Some patients felt that breathing was easier during immersion and some said it was harder. There was no clear relationship between the subjective effect of immersion and the change in arterial blood or ventilatory function.

Discussion

Immersion had variable effects on most of the quantities that were measured, but there was a significant relationship between the effects on arterial blood pCO_2 and on the size and ventilation rate of the most poorly ventilated lung region ("slow space"). When immersion caused the slow space to become smaller and more rapidly ventilated, the arterial pCO_2 fell; when immersion had the opposite effect, the pCO_2 rose.

This result is consistent with presently available information on the relation between blood flow and ventilation in the lungs of patients with severe emphysema. In such patients most of the ventilation is distributed to parts of the lung which have relatively little blood flow, and most of the blood flow goes to regions with relatively poor ventilation. When ventilation improves in these slowly ventilated regions, additional CO_2 is excreted, so that the arterial pCO_2 falls. It is not necessary that there be an improvement in aeration of blood everywhere within the lung to produce this effect. Carbon dioxide is removed from blood in nearly direct proportion to the degree of aeration, so that increased aeration in some parts of the lung may easily be sufficient to over-compensate for decreased aeration elsewhere, with a net fall in arterial pCO_2. This statement is not true with respect to the effect of unequal ventilation on arterial blood oxygen. Because of the shape of the oxyhemoglobin dissociation curve, increasing ventilation in a part of the lung where blood is already being well oxygenated can add little more oxygen to the blood because it has already reached nearly its full oxygen capacity. However, decreasing ventilation will cause a reduction in oxygen content of the blood in that part of the lung.

The net result of these different effects is that increasing total ventilation in the parts of a lung which are being well perfused with blood will cause a reduction in arterial pCO_2 even if ventilation decreases in some parts while it increases in others. On the contrary, there will be a strong tendency for arterial blood oxygen to decrease if ventilation is decreased in some parts of the lung, even though it is increased still more elsewhere.

It was true in the present study that arterial oxygen fell slightly during immersion in some subjects whose pCO_2 also decreased. This suggests that ventilation was decreased relative to perfusion in some parts of the lung, even though total alveolar ventilation was increased. This may well have resulted from an increase in blood flow through hypoxic regions rather than a decrease in ventilation, since all but one of the subjects with a drop in both arterial oxygen and CO_2 showed a simultaneous increase in "slow space" ventilation. As pointed out before, immersion tends to force more blood into the lungs and this may have opened vascular channels which normally tend to shut down in hypoxic lung regions.

The present study shows that abdominal compression by immersion can cause a redistribution of pulmonary ventilation and blood flow in patients with advanced emphysema. Presumably somewhat similar effects can be obtained with an emphysema belt or pneumoperitoneum. In some cases the effects appear to be distinctly favorable, and in some cases unfavorable. At present, we are unable to predict which patients may have a favorable effect. The benefit which some patients can obtain appears to warrant an empirical trial of abdominal pressure devices in severely handicapped persons. Further studies of this kind may lead to better understanding of the mechanisms involved with a consequent improvement in design of abdominal pressure devices and improvement in our ability to predict their effect in individual cases.

Summary

Patients with obstructive pulmonary emphysema were subjected to abdominal compression by immersion in water. The proce-

dure had variable effects on lung volumes, distribution of ventilation within the lung, and arterial blood gases. There was significant correlation between decrease in arterial pCO_2 and improvement in ventilation of the most slowly ventilated lung regions. In some cases, the effect of immersion on aeration of the blood was favorable, in some cases unfavorable. The study did not yield means of predicting the effect of abdominal compression on patients with emphysema but did indicate that benefit in individual cases could be sufficient to warrant a therapeutic trial of an abdominal pressure device.

BIBLIOGRAPHY

1. Kountz, B., Alexander, H.: Symptomatic relief of emphysema by abdominal belts. *Am. J. M. Sc.* 187:687, 1934.
2. Gordan, B.: The mechanism and use of abdominal supports and the treatment of pulmonary diseases. *Am. J. M. Sc.* 187:692, 1934.
3. Fraimow, W., Mann, J., Flickinger, H., Cathcart, R.: Exsufflation belt—use with LIPPB devise in treatment of pulmonary emphysema. *J.A.M.A.* 173:1098, 1960.
4. Hickam, J. B., Blair, E., Frayser, R.: An open-circuit helium method for measuring functional residual capacity and defective intrapulmonary gas mixing. *J. Clin Invest.* 33:1277, 1954.
5. Drabkin, D. L., Austin, J. H.: Spectrophotometric studies. II preparation from washed blood cells; nitric oxide hemoglobin and sulfhemoglobin. *J. Biol. Chem.* 112:51, 1935.
6. Hickam, J. B., Frayser, R.: Spectrophotometric determination of blood oxygen. *J. Biol. Chem.* 180:457, 1949.
7. Rosenthal, T. B.: The effect of temperature on the pH of blood and plasma in vitro. *J. Biol. Chem.* 173:25, 1948.
8. Peters, J. P., Van Slyke, D. D.: *Quantitative clinical chemistry.* Vol. II, Methods. The Williams and Wilkins Co., Baltimore, 1932.
9. Van Slyke, D. D., Sendroy, J., Jr.: Studies of gas and electrolyte equilibria in blood. XV. Line charts for graphic calculations by the Henderson-Hasselbalch equation, and for calculating plasma carbon dioxide content from whole blood content. *J. Biol. Chem.* 79:781, 1928.
10. Dill, D. B., Daly, C., Forbes, W. H.: The pK' of serum and red cells. *J. Biol. Chem.* 117:569, 1937.
11. Snedecor, G. W.: *Statistical Methods.* Fifth Edition. The Iowa State College Press, Ames, Iowa, 1956. ◄

From *The Journal* Fifty Years Ago

. . . I think it worthwhile to consider that it [polio] is contagious absolutely, because we are still groping in the dark as to its etiology. And as long as we are groping in the dark it should be regarded as contagious. I think the laity should be instructed in this regard, that we should isolate our patients, and inform the people that it is contagious—not absolutely, but that it is transferred from patient to patient in some way, but that way has not been discovered. A number of theories have been advanced as to the manner of transmission of this disease. If it is by contact, we must admit that a great number of children are not susceptible to the disease. But the same is true of scarlet fever or measles.

The essayist spoke of deformities. I want to make a plea for the prevention of deformities. I think the treatment of acute anterior poliomyelitis is more a question of prevention of deformities than anything that can be done at the time of the disease. . . .

F. O. Dorsey, M.D., in discussion of "Infantile Paralysis, or Acute Anterior Poliomyelitis" a paper by W. D. Hoskins, M.D., *JISMA*, Feb. 1912, p. 72.

Studies of a New Diuretic, Cyclothiazide

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A NEW THIAZIDE DIURETIC [6-chloro-3, 4-dihydro-3-(5-norbornen-2-yl)-7-sulfamoyl-1,2,4-benzothiadiazine-1, 1-dioxide] was recently synthetized by Whitehead, Traverso, Sullivan and Marshall.[1] Comparison of the structural formula of this compound with chlorothiazide is illustrated in Figure 1.

Tust, Henderson, and Anderson† in a rat assay found cyclothiazide to have a diuretic activity two hundred times greater by weight than chlorothiazide. In further pharmacologic studies in animals, cyclothiazide was found to produce the pattern of excretion typical for thiazide diuretics. It was equally active in the presence of systemic acidosis and alkalosis. The drug was well tolerated in dogs when administered daily for 6 months in doses as high as 10 mg per kg.

The subject of the present report is the evaluation of this diuretic agent in an assay method using normal subjects, patients with heart failure studied on a metabolic ward, and outpatients with hypertension and congestive heart failure.

Assay in Normal Subjects

For this study, eight healthy volunteers (5 male, 3 female) with no previous history of renal, cardiovascular, or liver disease were used. On the test day, the subjects were given a breakfast controlled in its potassium and sodium content and a total of 900 ml of 0.14 percent salt solution during the seven-hour observation period in order to standardize the water and sodium available for excretion. (Sieker, Gauer, and Henry[2] found this amount of saline solution optimal for studies of negative pressure breathing as a means of producing diuresis.) A two-hour control urine was collected following which the subject received either a placebo or an oral dose of a diuretic agent. Cyclothiazide was given in doses of 0.25, 0.5, 1.0, and 2.5 mg and chlorothiazide in doses of 250 and 500 mg. Each dose level of each drug and placebo were given in random order to each subject with at least 3 days elapsing between tests. After placebo or drug was administered, urine was collected over a five-hour period. Control and post-drug urines were analyzed for sodium, potassium, chloride, and creatinine by methods in common use.

As shown in Table I, when the rate of sodium excretion after placebo was compared to the control period, a slight decrease in sodium excretion rate was seen in each individual (varying from 0.2 to 3.7 mEq per hour). All subjects showed an increase in the rate of sodium excretion after all doses of cyclothiazide and chlorothiazide with a satisfactory dose response curve demonstrated between 0.25 and 2.5 mg of cyclothiazide. The natriuresis produced by 1 and 2.5 mg of cyclothiazide and 250 and 500 mg of chlorothiazide was quite similar (an increase in rate of sodium excretion of 9.8, 11.9, 10.8, and 13.3 mEq per hour respectively). The flat dose response between 1 and 2.5 mg of cyclothiazide and between

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† R. H. Tust, F. G. Henderson, and R. C. Anderson: Unpublished data.

NATRIURETIC POTENCY OF CYCLOTHIAZIDE AND CHLOROTHIAZIDE

Comparison of Urine Sodium Excretion
(mEq. per hour)
During 2 hour Control and 5 hour Post-Drug Periods

Subj.	Placebo	Cyclothiazide				Chlorothiazide	
		0.25 mg.	0.5 mg.	1.0 mg.	2.5 mg.	250 mg.	500 mg.
#1	−2.3	+5.5	+ 8.4	+10.2	+23.2	+19.5	+22.4
#2	−1.0	+5.3	+ 8.1	+10.5	+ 9.2	+ 7.8	+ 8.5
#3	−3.7	+3.4	+ 4.1	+ 5.3	+10.2	+12.6	+12.9
#4	−3.6	+0.4	+11.3	+ 8.4	+ 9.0	+18.1	+ 6.5
#5	−2.5	+6.8	+ 3.8	+ 7.6	+ 7.8	+ 9.4	+10.9
#6	−0.2	+2.8	+15.5	+10.4	+ 5.7	+ 0.9	+14.7
#7	−2.8	+4.1	+ 5.7	+ 9.8	+ 9.1	+ 9.7	+ 8.5
#8	−2.6	+7.4	− 3.4	+16.1	+20.7	+ 8.2	+21.6
Average	−2.3	+4.5	+ 6.7	+ 9.8	+11.9	+10.8	+13.3

TABLE 1

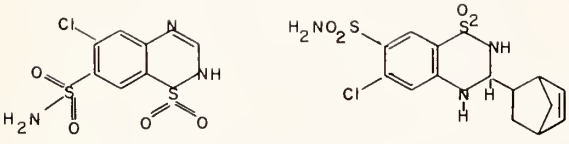


FIGURE 1

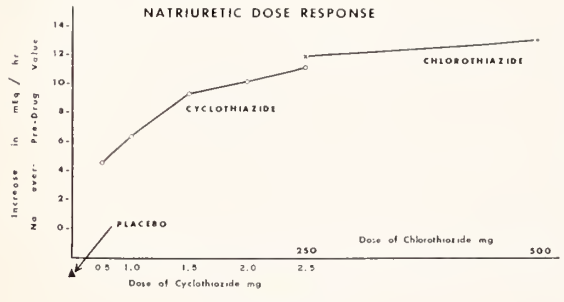


FIGURE 2

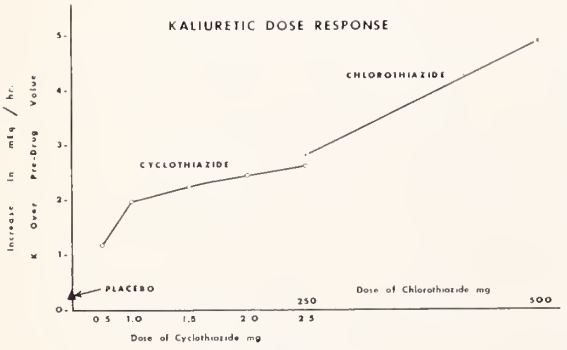


FIGURE 3

250 and 500 mg of chlorothiazide (illustrated in Figure 2) was an unexpected finding and may reflect a relative ceiling in the natriuretic effect that may be observed in nonedematous subjects given the amount of sodium chloride used in this assay procedure.

In Figure 3 are plotted the mean increases in urinary excretion rate of potassium (post-treatment minus control) for placebo and the various dose levels of cyclothiazide and chlorothiazide. Chlorothiazide in a dosage of 250 mg and cyclothiazide in a dosage of 2.5 mg increased the rate of potassium excretion approximately 2.5 mEq per hour.

Electrolyte Excretion in Patients with Heart Failure

For the second portion of this study, patients with congestive heart failure were admitted to a metabolic ward and their dietary sodium adjusted to a level which maintained a fairly uniform sodium excretion and a relatively steady weight for several days. Cyclothiazide in doses as small as 0.25 mg was found to have natriuretic activity and as in the normal subjects, there appeared to be a plateau at the dose level of approximately 2 mg per day.

Table 2 illustrates the excretion data obtained on six patients receiving 2 mg of cyclothiazide. When the urinary excretion of sodium on the day of drug was compared to the prior control day, an increase of 59

EFFECT OF CYCLOTHIAZIDE ON URINE ELECTROLYTES IN PATIENTS WITH HEART FAILURE

		Volume	Sodium	Potassium	Chloride
			(mEq./24 hrs.)		
E.C. #245846-1	A	1350	74	67	67
	B	2700	169	76	158
E.H. #156787-4	A	1600	41	60	23
	B	1950	100	64	127
M.T. #126118	A	1900	17	76	18
	B	3100	118	169	138
E.W. #329279-6	A	1210	79	24	75
	B	1250	160	42	179
C.M. #116516-6	A	1050	66	63	48
	B	1350	138	63	140
W.F. #126118-9	A	3650	89	145	142
	B	5050	138	230	246

A—control day
B—day of cyclothiazide administration (2 mg.)

TABLE II

to 101 mEq of sodium was observed with an average of 82.1 mEq (approximately 1.8 grams of sodium). In several patients, urinary pH and bicarbonate were also measured; no significant increases were observed, indicating this thiazide is relatively devoid of carbonic anhydrase inhibitor activity.

Effect on Blood Pressure

Cyclothiazide in a dosage of 0.5 to 2 mg per day was added to the therapy of a group of 10 hypertensive patients who prior to cyclothiazide had an average blood pressure of 190 systolic, 118 diastolic, supine; 183 systolic, 122 diastolic, standing. After administration of cyclothiazide, the average group blood pressure decreased to 178 over 102 supine, 159 over 105 standing. It is to be noted that as with other diuretics a greater effect was observed on standing systolic blood pressure (-24/-17 mm Hg) than on the supine level (-12/-16 mm Hg).

Use in Congestive Heart Failure

In the Cardiac Clinic of the Marion County General Hospital, 12 patients received cyclothiazide continuously for a period of nine months and an additional four patients for a period of six months, in a dosage of 1 to 4 mg daily. Statistical comparison of body weights obtained during cyclothiazide therapy with previous treatment periods of chlorothiazide showed no consistent trend in body weight during either drug period and a range of weight comparable during the two periods of therapy. It thus appeared that comparable edema control was accomplished with the two diuretic agents at a dose ratio of 1 mg of cyclothiazide for each 250 mg of chlorothiazide.

Monthly determinations of hemoglobin, white blood count, plasma sodium, potassium, and examination of the urine for albumin and sugar in these patients revealed no significant deviations from normal. In spite of unchanged plasma potassium levels with therapy, a mean increase in serum CO_2 content of 2 mEq per liter was observed. Although slight elevations of BUN levels (5 mg per 100 cc) were not uncommon, in only 2 patients was there a consistent elevation of significant magnitude. The BUN changes did not appear to be dose related in the range of 1 to 4 mg per day.

Thirty-four random uric acid samples in 11 of the patients receiving cyclothiazide showed a mean of 6.3 mg percent with a range from 2.9 to 11.1 mg percent. In the same clinic, similarly obtained random uric acid levels on patients receiving chlorothiazide in a comparable natriuretic dosage, showed a mean of 6.4 mg percent with a range of 3 to 9.2 mg percent. Thus, no significant difference was observed on the effect of these two diuretic agents on uric acid levels. In four female patients receiving

long term chlorothiazide therapy, glucose tolerance and uric acid clearances were performed and repeated two weeks after initiation of therapy with cyclothiazide. The tests were timed to coincide with the maximal natriuretic activity of the drugs. The glucose tolerance curves, plasma uric acid values and uric acid clearances were essentially superimposable.

Orthostatic hypotension was observed as an occasional complication of therapy with cyclothiazide. One patient with chronic venous insufficiency developed a rash over the thighs while on this compound; clearing occurred within 7 days after discontinuance.

Summary

In this study, cyclothiazide was found to be an active natriuretic agent in an assay procedure in normal subjects, 1 and 2.5 mg of this drug having approximately the same activity as 250 and 500 mg of chlorothiazide.

In patients with congestive heart failure hospitalized on a metabolic ward, cyclothiazide produced the expected increases in urine sodium, potassium, and chloride. This diuretic was found to be a useful adjunct to other therapy in a group of hypertensive patients and was as efficacious and safe as the previously used thiazide in the control of edema in a group of outpatients with congestive heart failure.

REFERENCES

1. Whitehead, C. W., Traverso, J. J., Sullivan, H. R., Marshall, F. J.: Diuretics V. 3, 4-Dihydro-1, 2, 4-benzothiadiazine-1, 1-dioxides. *J. Org. Chem.* 26:2814, 1961.
2. Sieker, Herbert O., Gauer, Otto H., Henry, James P.: The Effect of Continuous Negative Pressure Breathing on Water and Electrolyte Excretion by the Human Kidney. *J. Clin. Invest.* 33:572, 1954. ◄

The Real Transgression

The sin in the orbit of the Kefauver hearings and his proposed new legislation lies *not* in the cost of drugs to the public; *not* in the accepted successful methods and sound traditional practices of pharmacy and medicine; nor is it in the economic system under which an American health team operates and serves the public. The real transgression is the tampering and meddling of certain misguided politicians with a progressing, dynamic plan of health care that is serving our American people so bountifully and so well. And I have the horrible suspicion that this tampering and meddling arises not as much from a sincere-at-heart design for the good of the people as it does from the motives of political expediency and selfish advantage.—Nelson M. Gampfer, Chairman of the Board, The Wm. S. Merrell Company, to the Kentucky Pharmaceutical Association.

Report of a Case with a Twenty-Year Survival:

Giant Left Atrium

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*CHARLES FISCH, M.D.**
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SINCE THE FIRST REPORT in 1901, instances of giant left atrium have been reported with increasing frequency.[1-20] The patient observed by us was thought worthy of reporting because of (1) the massive enlargement of the atrium and (2) long survival after diagnosis of a giant atrium complicated by a cerebral embolus was first made.

Case Report

The patient, a 44-year-old white female, was admitted to the Marion County General Hospital on Sept. 9, 1960, complaining of severe dyspnea, orthopnea, paraxysmal nocturnal dyspnea, marked anasarca, chronic cough and dysphagia. A voluminous history with numerous laboratory tests and x-ray examinations had been compiled over the past 20 years. The essential features, however, were as follows: At ages 9, 18 and 24 the patient had well documented attacks of rheumatic fever for which she was hospitalized, and on one occasion, for a short period of time, was treated with digitalis.

In 1940 she was admitted to our hospital with a cerebral embolus manifested by a left sided hemiplegia. Further examination at that time disclosed that she was three months pregnant, the heart was described as "markedly enlarged" and the electrocardiogram disclosed atrial fibrillation. The pregnancy was complicated by increasing heart failure but the patient carried to term and delivered a live infant. Shortly thereafter a tubal ligation was performed.

In 1947, a second cerebral embolus and in 1949 recurrent pulmonary emboli, complicating chronic heart failure, were recorded. The heart at that time was again noted to be markedly enlarged and the murmurs of mitral stenosis and insufficiency were described. The liver was palpable four finger breadths below the right costal margin. The patient was digitalized and placed on anticoagulants and diuretics with satisfactory control of the failure.

Over the next four years dyspnea and fatigue complicated by anginal-like chest pain became increasingly severe. In 1953, the patient was found to have cervical carcinoma which was treated surgically. Between 1953 and 1958 she was hospitalized three times for skeletal fractures and multiple ecchymoses resulting from accidents.

The patient's condition continued gradually downhill, requiring frequent hospitalizations because of severe heart failure. During the course of her illness at least two attempts of removing "fluid" from right chest cavity posteriorly resulted in penetra-

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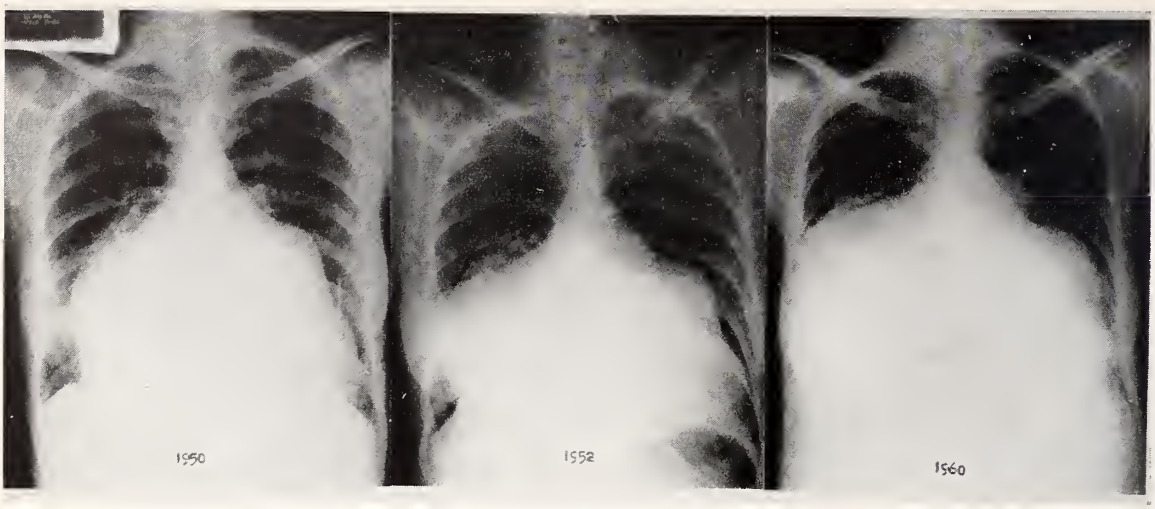


FIGURE 1

ROENTGENOGRAMS taken in 1950, 1952 and 1960 showing the marked cardiac enlargement. Both right and left cardiac borders are formed by the left atrium.

tion of the atrium, the latter filling a large portion of the right thoracic cavity.

Physical examination at the time of her last admission, Sept. 9, 1961, showed a thin, cachectic female with darkly pigmented skin, in obvious respiratory distress. There was a dusky appearance to the nail beds and both fingers and toes were clubbed. There was a four plus pitting edema to the sacral region with stasis dermatitis of the lower legs. Dullness to percussion was elicited over lower thorac, breath sounds were markedly decreased over lower one half of the chest and rales were heard in both bases. The apical rate was 160 and the radial 110; blood pressure was recorded as 126/80. The heart was enlarged by percussion to the mid-axillary line and there was pronounced left precordial heave. Systolic thrill was palpable in the aortic area as well as on the left posteriorly. The second pulmonic sound was louder than the second aortic and the former was markedly accentuated. Loud diastolic and harsh holosystolic murmurs were heard in the mitral area with radiation over the entire precordium. There was a short musical systolic murmur heard to the right of the sternum in the fifth intercostal space. The peripheral pulsations were weak. The abdomen was grossly distended with fluid and the liver was palpable to the level of the pelvic brim. The spleen was enlarged five to six centimeters below the left costal margin.

Laboratory Data

Laboratory data disclosed the following: hematocrit reading 32%, white blood cell count 7,000, urine 1-plus protein, bilirubin 3.2 mg. %, sodium 140 mEq/L, chloride 108 mEq/L, potassium 5.5 mEq/L, alkaline phosphatase 4.0 King-Armstrong units, serum urea nitrogen 14 mg.%, cephalin flocculation 3-plus, thymol turbidity 9.5 units, total protein 8.1 gms.%, albumin 5.1 gms.%, globulin 2.9 gms.%, prothrombin time was 14% of normal. The roentgenograms showed marked cardiac enlargement (Figure 1).

The patient was treated for congestive heart failure with digitalis and diuretics. Repeated abdominal paracentesis were performed with removal of 2450 cc, 1200 cc and 1100 cc of fluid respectively. She was discharged somewhat improved but died at home two weeks later.

The pathological examination unfortunately was done after embalming and was limited to the heart and thoracic cavity. The pleural cavities were smooth and glistening and no fluid was present. The heart was extremely large in size with dilatation of all chambers. It weighed 640 gms. The pericardial sac was adherent to the epicardial surface by dense adhesions. The thickness of left ventricular wall was 17 mm and that of the left atrial wall 1 mm. The tricuspid ring was 13 cm in circumference and tricuspid opening 8 cm. The pulmonary opening was

6 cm, mitral ring 13 cm, mitral opening 6 cm and aortic opening 6 cm. The chordae tendinea were thickened and the tips of the papillary muscle were fibrotic. Moderate calcification of the mitral and tricuspid valves was noted and both valves were extremely rigid and fixed. The coronary arteries were not remarkable. Both atria were enlarged, the left being much larger than the right. No clots were found in either of the chambers. The left atrium held 1500 cc and the right 550 cc of fluid respectively. Microscopic examination of the left atrial wall showed thinning with replacement of muscle by fibrous tissue. No Aschoff bodies were seen. Gross examination of the lungs showed no evidence of infarction.

Discussion

In cases of giant left atrium one usually obtains a history of several attacks of rheumatic fever. Signs of pulmonary hypertension are lacking and symptoms of failure are usually late in onset. Exercise tolerance at first is only slightly reduced. Dysphagia may be present due to a flattening of the esophagus over the enlarged chamber. Other pressure symptoms include a dry cough and hoarseness and on occasions the latter may be due to left recurrent laryngeal nerve palsy.[1] Chest pain, variable in location and duration, is a common symptom and possibly due to spinal erosion, active pericarditis, and rheumatic arteritis. It has also been postulated that with the increased stretching of the atrium the elongated and narrowed coronary arteries may give rise to ischemic-like pain. A case has been reported in which relief of such pain was obtained with nitroglycerin.[1]

On physical examination the extremities are usually cold and dry and peripheral arterial pulsations are weak. The neck veins are distended, but pulsations may be of normal amplitude. Edema, ascites and hepato-splenomegaly are late in onset. The precordium is active with visible pulsations to the left and sometimes to the right of the sternum with enlargement of the heart to the left and right. Mitral systolic and diastolic murmurs are recorded. The systolic murmur is loud and harsh and frequently accompanied by a thrill. A systolic murmur is transmitted over the entire precordium and to the back. The pulse is irregular and atrial fibrillation is nearly always present. The dullness in the right lung base is due to pleural effusion, but in several reported cases thoracenteses have been performed only to find that the needle entered the left atrium.[2]

The left atrium enlarges posteriorly, superiorly and to the right. The initial posterior enlargement can be seen on both right and left anterior oblique x-ray films. Further enlargement of the right gives the appearance, in the antero-posterior view, of a "double contour" along the right heart border due to the superimposition of the right and left atrial shadows. With further enlargement both the right and left heart borders are made up of left atrium. The barium filled esophagus is displaced posteriorly and to the right. Usually some right and left ventricular enlargement can also be seen. Fluoroscopically the size of the left atrium is inversely proportional to the degree of cardiac pulsations and the atrium may be still throughout the cardiac cycle.[1] With the use of contrast media it can be shown that the right and left main stem bronchi are elevated. Pressure on surrounding structures may result in collapse of a lobe with complete or partial obstruction of bronchi with resultant atelectasis or bronchiectasis. Daley and Franks[1] have reported a case of giant left atrium with x-ray demonstration of erosion of the 7th, 8th and 9th thoracic vertabrae but without associated pain. Ashworth and Jones[3] described a patient with intractable pain in the area of the right scapula and at autopsy, the bodies of the 5th to the 9th vertebrae were found to be eroded.

Atrial fibrillation is a constant electrocardiographic finding. Right axis deviation with clockwise rotation and nonspecific S-T and T wave changes are also seen.

A differential diagnosis of a giant left atrium would include mediastinal tumors, enlarged right atrium, pericardial cyst, encapsulated pericardial fluid, and aortic aneurysm.

The pathogenesis of massive left atrial enlargement begins with rheumatic carditis.

It is postulated that this process results in destruction of normal atrial muscle with subsequent fibrosis and thinning of the wall This weakening from rheumatic atrial myocarditis coupled with increased pressure due to valvular involvement are the most apparent causative factors for the tremendous atrial enlargement. At autopsy the left atrium is found to be symmetrically enlarged with little increase in the size of the atrial appendage. Any localized aneurysmal dilatation is usually due to localized atrial arteritis, infarction or adjacent mediastinal or pulmonary disease.[4] The pericardial sac is densely adherent to the epicardial wall and compression atelectasis of adjacent lung tissue can be seen. Bedford[5] has reported a case with an aneurysmal protrusion of the left atrium into the right in the area of fossa ovalis. Histologically the left atrial wall is thin and fibrotic with little or no muscle tissue remaining. No Aschoff bodies are seen.

In our case the atriae were probably much larger than was indicated by the postmortem measurements because these were performed after the body was already embalmed.

Summary

A case of a bilateral massive atrial enlargement complicated by embolization with an unusually long survival is reported.

REFERENCES

1. Daley, R., Franks, R.: Massive dilatation of the left auricle. *Quat. J. Med.* 70:91, 1949.
2. Owen, I., Fenton, W. J.: A case of extreme dilatation of the left auricle of the heart. *Clin. Soc. Trans.* 24:183, 1901.
3. Ashworth, H., Jones, A. M.: Aneurysmal dilatation of the left auricle with erosion of the spine. *Britsh Heart J.* 8:207, 1946.
4. Sloan, S., Pollock, R. C., Keishbaum, J., Freedman, T.: Massive dilatation of the left auricle: Report of three cases. *Ann. Int. Med.* 40:75, 1954.
5. Bedford, D. E.: Extreme dilatation of the left auricle to the right. *Am. Heart J.* 3:127, 1927.
6. Shapero, M. A., Parker, G. W.: Massive dilatation of the left atrium: A case report. *Ann. Int. Med.* 48:1097-1106, 1958.
7. Bland, E. F., Balleni, G. M., White, P. D.: Enormous increase of heart volume in mitral stenosis. *J.A.M.A.* 96:840, 1931.
8. Emanuel, J. G.: Extreme dilatation of the left auricle. *Lancet* 1:591, 1923.
9. Nichols, C. F., Ostrum, H. W.: Unusual dilatation of the left auricle. *Am. Heart J.* 8:205, 1932.
10. Rogers, W. R., Wittels, B.: Extreme bilateral atriomegally: review of the literature and report of a case. *Circulation* 15:434-441, 1957.
11. Akman, L. C.: Mediastinal mass simulating enlarged heart, intracardiac catheterization in diagnosis. *Ann. Int. Med.* 28:1048, 1948.
12. Burkhard, E. A.: Marked dilatation of the left auricle of the heart. *Am. J. Path.* 6:463, 1930.
13. Evat, C. F. T.: Great dilatation of the left auricle. *Lancet* 1:1194, 1926.
14. Bach, F., Keith, T. S.: Enlargement of the left auricle of the heart. *Lancet* 2:766, 1929.
15. Semans, J. H., Taussig, H. B.: Congenital "aneurysmal" dilatation of the left auricle. *Bull. Johns Hopkins Hosp.*, 63:404, 1938.
16. Parsonnet, A. E., Bernstein, A., Martland, H. S.: Massive left auricle with special reference to its etiology and mechanism: report of a case. *Amer. Heart J.* 31:48, 1946.
17. Bishop, L. F., Babey, A.: Massive dilatation of the left auricle. *J.A.M.A.* 106:462, 1936.
18. Steele, J. M., Jr.: Compression and displacement of the bronchi in mitral stenosis. *Am. Heart J.* 4:53, 1928.
19. Steele, J. M., Jr., Paterson, R.: Dislocation of the bronchi by left auricular enlargement. *Amer. Heart J.* 4:692, 1928.
20. Cobbs, B. W., Shellingford, J. P., Steenes, R. E.: The size of the left atrium in conditions other than mitral valve disease. *British Heart J.* 19(4):495-502, 1957. ◄

Ventricular Tachycardia with Retrograde Conduction Exhibiting The Wenckebach Phenomenon

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VENTRICULAR TACHYCARDIA with retrograde activation of the atria is an uncommon electrocardiographic phenomenon. Once the retrograde conduction occurs, however, the presence of abnormalities of conduction within the atrio-ventricular node are not unusual. These abnormalities often consist of varying forms of second degree retrograde A-V block. An unusual variant is the occurence of a Wenckebach phenomenon during the retrograde conduction.

Analysis

Analysis of the electrocardiograms: Figure 1 shows the tracings obtained on a 63-year-old white male who was admitted to the Veterans Hospital in Indianapolis, January, 1956. He had a history compatible with the diagnosis of acute myocardial infarction. Strip A of Figure 1 is illustrative of the early electrocardiograms and demonstrates the pattern of acute posterior myocardial injury. Strip B is an example of many tracings taken during episodes of ventricular tachycardia. It should be noted that the configuration of the QRS complexes is very bizarre. The duration of the QRS response is 0.16 seconds. P waves can be identified and they are upright such as demonstrated by the P superimposed on the T of the first QRS response. Another P wave is seen immediately preceding the third QRS response. These P waves are identifiable throughout the remainder of strip B and bear no relationship to the QRS. Strip C illustrates the ventricular tachycardia with retrograde response demonstrating a Wenckebach structure. The diagram under the leads is done in the conventional manner. In lead II the first beat is associated with a retrograde P wave with an R-P interval measuring 0.22 seconds. The second retrograde P wave is coupled to the QRS with a R-P interval of 0.32 seconds. The third P wave has an R-P interval of 0.40 seconds. Following the fourth QRS complex, retrograde conduction failed and no P wave is recorded. The fifth QRS has an accompanying retrograde P wave with an R-P interval of 0.22 seconds. Thus, the classic pattern of Wenckebach phenomenon is fulfilled, namely an increasing retrograde conduction time through the A-V node until it is so long that the impulse fails to produce an atrial response. This produces a long interval that is less than two P-P intervals. The remainder of the tracings in strip C illustrate the constant nature of this process. The inversion of the P wave in leads II, III, AVF attests to the fact that the atria have been activated in a retrograde manner.

Strip D is a tracing taken some time after the episodes of ventricular tachycardia. It shows a return to the QRS configuration

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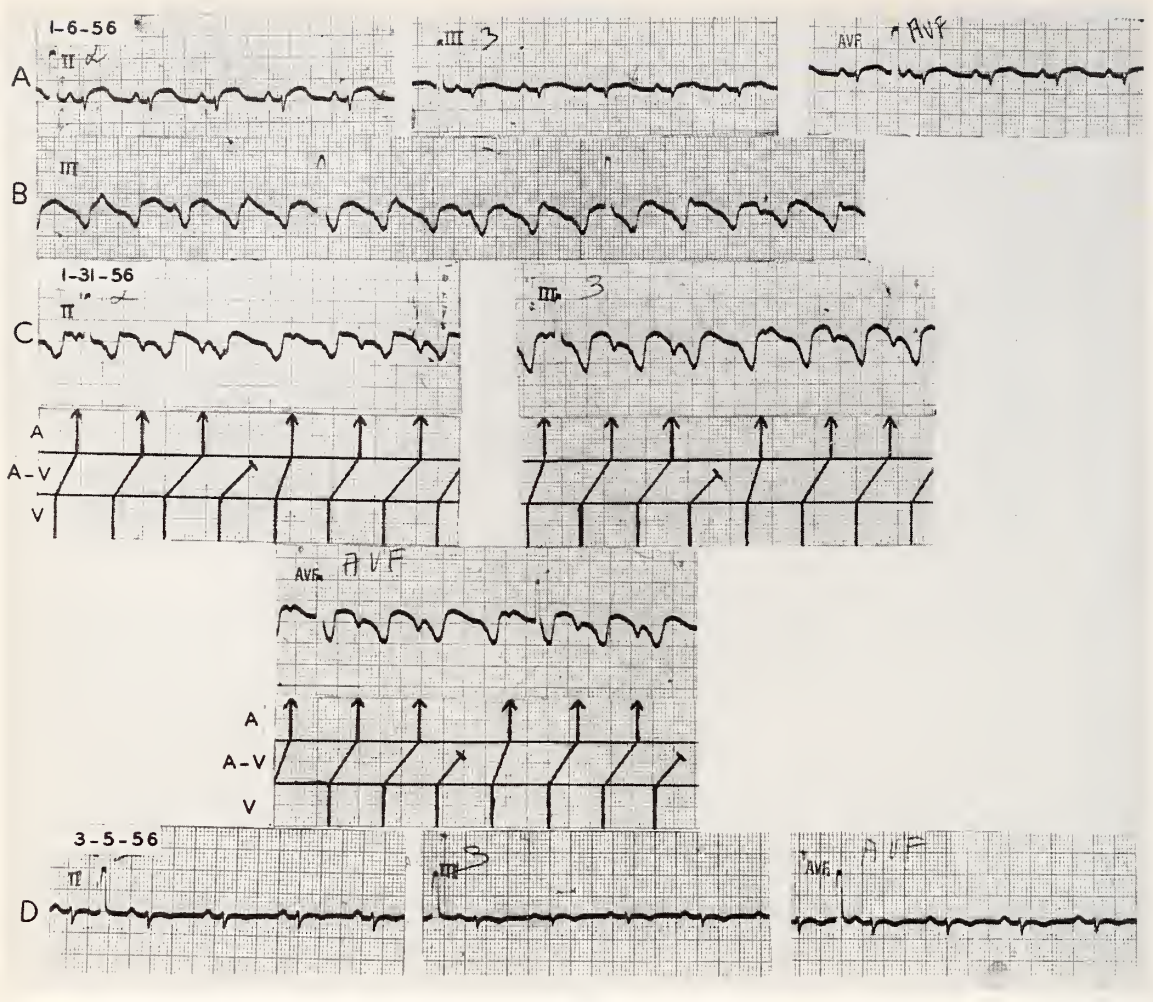


FIGURE 1

TRACINGS SHOWING the presence of ventricular tachycardia with retrograde conduction and Wenckebach structure. For details see text.

seen in strip A with the residual effect of the myocardial injury manifested by inversion of the T waves in these leads.

Discussion

Retrograde conduction to the atria with ventricular tachycardia was first described by Lewis following ligation of coronary arteries in dogs.[1] He noted that retrograde conduction occurred more commonly when the ventricular rate was less than 220. At ventricular rates faster than this there was a tendency to manifest second degree retrograde A-V block. In 1950 Foster and Thayer reviewed 81 cases of ventricular tachycardia.[2] They found nine cases with retrograde conduction. It is interesting to note that there was an irregular retrograde conduction in six of the nine cases. In their series the retrograde conduction occurred when the ventricular rate was less than 160. With the aid of a bipolar esophageal lead Kistin showed evidence of retrograde conduction in 14 of 21 cases of ventricular tachycardia.[3]

Kistin reported almost as many cases of retrograde conduction in his series as had previously been reported in the world's literature. The use of the bipolar esophageal electrode has made it possible to unmask evidence of retrograde response of the atria that previously had been obscured by the bizarre configuration of the ventricular tachycardia.

It is not known why some retrograde response should manifest as 1:1 A-V conduction and others as 2:1 A-V conduction or other variants of second degree A-V

block. It is likely that very high rates of ventricular discharge render the A-V node refractory to a 1:1 response.

A second degree A-V block however, can occur when the ventricular rate is relatively slow. The cases of Wenckebach phenomenon in Kistin's report occurred at ventricular rates ranging from 98 to 182.

The absence of a prolonged A-V conduction time (P-R interval) during sinus rhythm is not disturbing, for unidirectional block, in this case retrograde, with persistence of normal forward conduction is well founded.[4]

Electrocardiographically, this type of arrhythmia presents a diagnostic problem. It can be confused with a nodal tachycardia with retrograde response and aberrant forward conduction. This differentiation is of clinical importance. The following points would favor ventricular tachycardia. The long R-P intervals demonstrated in these tracings would not be common in a nodal rhythm. When aberrant conduction occurs, it is less likely to produce the very broad (0.16 seconds) complex seen in these records. Most often aberrant conduction leads to a pattern of right bundle branch block.[5] In our case the configuration of QRS resembled left bundle branch block. The control tracings before and after the episodes of tachycardia attest to the fact that bundle branch did not exist in this case. Occasionally fusion and "capture" beats confirm the diagnosis of ventricular tachycardia.

The occurrence of broad ventricular complexes with evidence of independent atrial activity favors the interpretation of ventricular tachycardia. The latter is illustrated in strip B of Figure 1. Other tracings (not shown here) revealed the occurrence of ventricular premature contractions. These premature beats had a configuration similar to the complexes seen during the episodes of tachycardia.

Summary

An example of ventricular tachycardia with retrograde activation of the atria exhibiting the Wenckebach structure is described.

ACKNOWLEDGMENT

I wish to acknowledge the cooperation of Dr. Ward Laramore (10th Street V-A Hospital, Indianapolis) for supplying the tracings used in this case.

REFERENCES

1. Lewis, T.: The experimental production of paroxysmal tachycardia and the effects of ligation of the coronary arteries. *Heart* 1:98, 1909.
2. Foster, R. F., Thayer, R. H.: Retrograde conduction to the auricles in paroxysmal ventricular tachycardia. *Am. Heart J.* 40:224, 1950.
3. Kistin, A. D.: Retrograde conduction to the atria in ventricular tachycardia. *Circulation* 24:236, 1961.
4. Katz, L. M., Pick, A.: *Clinical electrocardiography. The arrhythmias.* Philadelphia, Lea and Febiger, 1956.
5. Gonaux, J. L. and Ashman, R.: Auricular fibrillation with aberration simulating ventricular paroxysmal tachycardia. *Am. Heart J.* 34:366, 1947. ◄

Foreign Drugs for Soldiers and Veterans

The Military Medical Supply Agency and the Veterans' Administration have sent millions of the taxpayers' dollars overseas to purchase cheap, pirated versions of powerful drugs discovered by U. S. companies and presumably protected by U. S. patents. This practice was deservedly denounced by American labor when the Oil, Chemical, Atomic Workers International Union passed a resolution strongly condemning it. When the government goes shopping, the taxpayer has a right to expect that it will spend his money wisely, for a good purpose and for the general welfare of the country.—U. S. Senator Hugh Scott in 87th Congress.

Principles of Chemotherapy in Hypertension

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ONLY A LITTLE MORE than ten years ago a discussion of drug treatment of hypertension would have been futile if not faintly ridiculous. During the interval a large and bewildering series of antihypertensive agents have become available, some of which at least are useful only in fairly specific situations. Some of the most pharmacologically active place special demands on both physician and patient in avoidance of disquieting and even injurious side effects.

Formerly, the most that the physician could offer many hypertensive patients was advice on accepted principles of general and mental hygiene supplemented by mild sedatives aimed at diminishing their overreactive vasomotor responses to inevitable psychic stress. Treatment was substantially symptomatic. A minority of patients with progressive disease were subjected to dorsal or dorso-lumbar sympathectomy or placed on strict low sodium diets. Only a fraction responded favorably to either procedure and most found the diets either impractical or unacceptable and the operations uncomfortable, if not disabling. Further, there was very little real conviction that hypertension, particularly if it was relatively mild, posed a problem that required correction.

Change to Prophylactic Measures

This attitude has changed radically. First, it has been abundantly established, experimentally and clinically, that increased arterial pressure is the intrinsic major cause of the hypertensive vascular disease that ultimately damages and cripples the vital target organs of brain, heart and kidneys. The advent of potent antihypertensive drugs has shown that this process can be arrested or prevented by strict and intensive antihypertensive medication.

Further, hypertension is now recognized as one controllable factor in atherogenesis, both coronary and cerebral. Lastly, recent actuarial data have shown severalfold increases in actual to expected mortality rates in patients, particularly men, whose pressure levels of 90-100 mm Hg diastolic would formerly have been considered minimal or negligible.

We have in effect advanced into a period in which the physician is called upon not only to treat and arrest *active* hypertensive disease, but also seriously to undertake its *prevention* by appropriate medication of patients' mildly elevated pressures with little or no signs of active vascular damage. We have moved from a phase of "expectancy" into one that is recognizably remedial and toward a phase of prophylactic treatment. But with the variety of agents available, the physician's problem, like the Mikado's, is to "let the punishment fit the crime."

Hence, treatment begins with diagnostic and descriptive evaluation. First, a fairly detailed survey should establish or exclude one of the categories of hypertension of known or ascertainable cause; these can be grouped as renal, endocrine, cardiovascular and neurogenic. Among these, the most common, as they present themselves in physicians' offices, is arteriosclerotic hypertension. This is characterized primarily by fluctuant increases primarily of systolic pressure occurring in people in their 50's and 60's; pressures are labile because they reflect the loss of elasticity of the aorta and

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great vessels and vary with cardiac and vasomotor output.

Particularly among women, this process is relatively very benign. It responds fairly readily to rest, reassurance and, since cardiac output is greatly affected by anxiety, to mild sedation. However, many of these patients are men, some of whom show also a diastolic component, and in these more active medication is at least desirable if it can be simply achieved.

Among patients with diastolic hypertension, the majority, perhaps 90%, present with primary or essential hypertension. We do not know the nature of this process; however, we do know several factors that enter into it. Early in its course, neural and perhaps even psychic factors seems to predominate in maintaining the increased arterial pressure. These later change the vasomotor reflexes that tend to "fix" the hypertension and make it self-sustaining; this process of "re-setting" has been demonstrated experimentally. Concurrently, changes occur in physical properties of vessel walls, in endocrine organs, notably the adrenal cortex, and in the kidney that, in the severe and malignant hypertensive establish a state in which dominant mechanisms seem to be humoral rather than neural.

Therapeutic Agents

The type of therapeutic agent to be selected depends in large measure on the stage of the process. Whatever agent is chosen, it can be considered effective only if it maintains pressure at or near substantially normal levels. The choice is helped by considering these agents in their broad pharmacologic groups.

1. *Neurotropic agents.* The largest number of available agents act on neural controls of arterial pressure.

First, there are those with central neural action. The most commonly used are sedative only, with no intrinsic depressor effects, as exemplified by phenobarbital. Meprobamate (Miltown®) has recently come into increased use, largely, as it seems, because many patients tolerate it better. However, the fact that it has an intrinsic skeletal muscle relaxant property is worth noting. Brod's recent analysis of the hemodynamic state of early essential hypertension shows that it corresponds remarkably to that of exercise without appropriately increased muscle movement and blood flow. It may be that the relaxant property of meprobamate carries with it an indirect antihypertensive effect. The association also brings to mind Jacobsen's tedious, but undoubtedly sometimes, effective treatment of hypertension by his system of "Progressive Relaxation."

Next, there has recently been introduced a congener of meprobamate, mebutamate (Capla®). Experience with this agent has been described by others, largely in preliminary reports. Pharmacologically, it is mildly sedative and inhibits vasomotor outflow. As such, it would seem to have a much wider and more specific field of effectiveness than agents which are sedative only. Our own experience demonstrates unequivocally that single doses have definite although brief depressor effects in patients with mild and moderately severe hypertension; our chronic therapy has been less rewarding than has been the experience of others, apparently because a majority of our patients are an indigent, largely Negro group with relatively advanced hypertensive disease in which, perhaps, the neural component is not predominant.

About two-thirds of those with mild or moderate disease have shown satisfactory control of pressure and apparent symptomatic relief over periods of several months; drowsiness, usually transient, has been the only significant side effect. Patients with severe or malignant hypertension do not respond, but present evidence suggests a wide applicability in patients with mild or moderate hypertensive disease and in arteriosclerotic hypertension.

Rauwolfia Drugs

The rauwolfia drugs are commonly classed among agents whose antihypertensive effects depend on their central action. Recent evidence suggests that, in clinical dosage, their effect may be primarily peripheral, by depletion of norepinephrine from sympathetic nerve endings. They are in wide and, as it seems, excessive and perhaps even

careless use. Patients taking these agents, particularly in doses greater than 0.25 mg Reserpine equivalent daily, commonly have vague symptoms of lassitude, fatigability and depression; the latter is not infrequently severe and may assume the form of a deep psychosis. Indeed, a colleague at a recent conference suggested that one could acquire quite a reputation simply by taking patients off drugs of this group and thus restoring them to a feeling of well-being. Depressive reactions are much more common, ranging upwards of 25%, higher in men than in women; they are often masked and, since they may be severe, impose a burden of vigilance on the physician who is obligated to use these drugs in minimally effective doses.

Peripherally active neurotropic agents act at one of three sizes, viz., autonomic ganglia, peripheral nerve endings or by sensitizing afferent depressor reflexes.

Ganglioplegics, of which the type is hexamethonium, impair transmission in all autonomic ganglia, inducing both sympathetic and parasympathetic paresis. These have undoubtedly prolonged and saved the lives of many patients with relatively severe and malignant hypertension. As a class, they have a tendency to fairly rapid development of at least partial tolerance, and usually reduce pressure only during orthostasis. Their concurrent effects of parasympathetic paresis, ocular, salivary, intestinal, vesical and genital are at least annoying and sometimes intolerable. These are agents for severe situations; the patient has to be carefully instructed in their use and in the control of their side effects in the hospital. They are now perhaps most useful in acute situations demanding prompt lowering of pressure levels and have little or no place in the office treatment of the average hypertensive patient.

Use of Sympathoplegics

The sympathoplegics, which act by impairing synthesis of noradrenaline at peripheral nerve endings and effect a pure chemical sympathectomy are exemplified by bretylium tosylate which, because of problems of tolerance and toxicity has not come into general use, and by guanethedine. The latter seems to be an agent of choice in patients with relatively severe disease. Disadvantages are orthostatic and exercise hypotension, partial and sometimes irregular absorption and a curious tendency to episodic fluid retention and "pseudo-tolerance" relieved by concurrent diuretic therapy. This again, in effective doses, is a very active agent. My own experience suggests that it is best used in patients who can be trusted to adjust their requirements of drug by day to day self measurements of standing systolic pressure, and that it is best used concurrently with a thiazide diuretic. One large advantage of this very potent peripherally acting agent is the absence of central and psychologic effects.

The only series of drugs that act by sensitizing afferent depressor reflexes are the veratrum preparations. These have great pharmacologic and theoretical interest, the more so because relative irresponsiveness of afferent depressor reflexes is one of the factors that seems to contribute to the self-sustaining and progressive character of hypertension. Unfortunately, while useful in hypertensive emergencies, their chronic use is complicated by the near equivalence of depressor and emetic oral doses, so that they have now little or no place in chronic treatment.

2. *Vasodilators.* Among the many vasodilator agents that have been tried in hypertension the only one that seems genuinely effective is hydralazine. Its side effects, initially at least, are often unpleasant and, given in large doses for long periods of time, a small proportion of patients have developed a lupus-like syndrome. It seems to have little place in the treatment of mild hypertension but is still a very valuable agent, particularly in combination with sympathoplegics and diuretics in patients with severe hypertensive disease.

3. *Diuretics.* The advent of thiazide diuretics has recently greatly modified office as well as hospital treatment of hypertension. These act initially by decreasing blood and interstitial fluid volume; their chronic action is not well understood and may reflect decreased hydration of vessel walls. In either case, they are intrinsically antihyper-

tensive only in a minority of patients—presumably that group who, in former years, would have responded to low sodium diets if they could have been induced to follow them. Their most important effect is one of potentiating the action of the neurotropic antihypertensive agents, permitting these to be used in minimal doses, with concurrent diminution in the incidence and severity of side effects. Such potentiation has been clearly demonstrated in the case of ganglioplegics and sympathoplegics and the rauwolfia drugs; present evidence suggests that it occurs also in the case of the central neurotropic agent, mebutamate.

4. *Combination Therapy.* To the clinical pharmacologist, combination therapy is a bane, since it leaves him with little information on the intrinsic effectiveness of any of the drugs used. However, in the case of essential hypertension, which is essentially a multifactorial process, combination treatment is theoretically as well as practically justifiable and should not be dismissed as a "shot-gun" procedure. However, since each of the drugs used has its own optimum dosage in each patient, "packaged" combinations are often disappointing.

Summary

In summary, effective treatment of hypertension consists of persistent restoration of arterial pressure to or toward normal levels. The aim is both remedial and prophylactic. Further, since experimentally and, as it seems, clinically, persistent hypertension is associated with upward re-setting of vasomotor controls that tend to make the process self-sustaining, it would seem likely that adequate control of arterial pressure would have the reverse effect. This, in fact, seems to be the case. At least, many patients who have come under prolonged adequate control of pressure have shown progressive decreases in requirements of antihypertensive drugs and a minority have achieved what seem to be true remissions. Earlier treatment of hypertension may well increase the numbers of this latter group.

In advocating, as I do, wider and more intensive therapy of mild hypertension, I realize the risk of "over-treatment." However, in balance, this seems to be less of a fault than supinely permitting large numbers of patients to succumb to or be disabled by strokes, myocardial infarcts or renal failure that early and effective treatment might have postponed or prevented.

Lastly, the selection of agents depends on the severity of the disease. Severe situations require stringent medication; milder situations permit more gradual choices of those which alone, or in combination, achieve the desired effect with minimal side effects and adequate control of blood pressure level. ◄

How to Kill Incentive in Drug Research

Effect of compulsory generic name use on the ethical drug makers would be profound, say industry spokesmen. Gone would be the incentive to make the highest possible quality products; minimum standards would suffice. The incentive to improve existing drugs would disappear. There would be little incentive to develop dosage forms which could benefit relatively few people, and there would be little incentive to distribute a product to areas where statistics show sales would be relatively low. The most expensive drug is the one you can't get when you need it. . . . And incentive and money to do research toward new drugs to lick the as yet incurable diseases would be lacking. The question then arises: Where would tomorrow's drugs come from?—*Chemical & Engineering News,* June 13, 1960.

ERRATA

The Why, When, And How of Liver Function Tests—Leon L. Blum, M.D.
—Read From Page 191 to 190.

Laboratory Medicine, Bleeding and Coagulation Time—A. Wendell Musser, M.D.
—Read From Page 193, 192, 194.

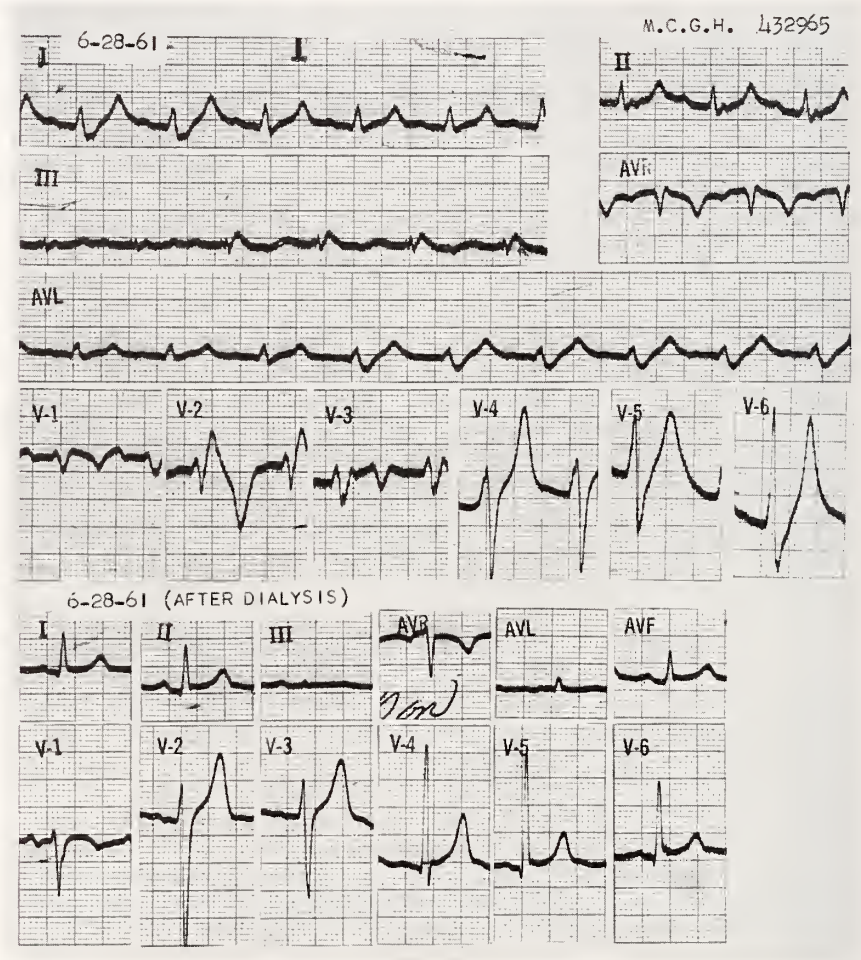
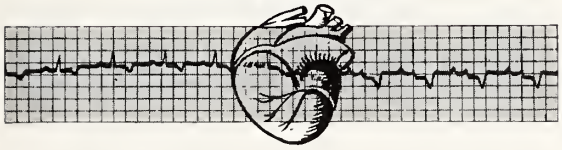


FIGURE 1

TRACINGS SHOW prolonged P-R, changing duration of QRS from normal to complete I-V block, depression of amplitude of QRS, tall peaked ("tented") T waves with regression towards normal in the lower trace.

Electrocardiogram of the month



Presented as a regular feature of The JOURNAL, Electrocardiogram of the Month is a series of short talks on cardiovascular diagnosis and treatment, edited by the staff of the Robert M. Moore Heart Clinic of the Marion County General Hospital, Indianapolis.

Hyperkalemia with Delayed Atrio-Ventricular (A-V) Conduction

*CHARLES FISCH, M.D.**
Indianapolis

RISING POTASSIUM PLASMA level causes depression of propagation of excitation throughout the myocardium with resultant prolongation of the QRS complex and delayed A-V conduction. The latter can be produced with remarkable regularity under experimental conditions but is rarely seen in clinical situations. In fact its existence is denied by some. Other well-known changes due to potassium include early peaking of the T waves, occasional shortening of Q-T interval, disappearance of P waves and development of many forms of supraventricular and ventricular arrhythmias.

It is the purpose of this report to present an instance of hyperkalemia with prolongation of P-R interval which was considerably shortened by hemodialysis with an artificial kidney.

Case Report

The patient was a 35-year-old male who was admitted because of myelofibrosis and uremia. The upper EKG of June 28, 1961, was taken prior to the dialysis at which time the BUN was 270 mg, percent and plasma K 9.9 mEq/L. The dominant rhythm is sinus in origin with a rate of 100 beats per minute. The P-R interval measures .24-.26 seconds. A changing intraventricular (I-V) block, as manifested by a duration of QRS varying from .10 to .16 seconds, is obvious. The I-V block has the features of right bundle branch block. The T waves are tall and peaked and typical of hyperkalemia.

The lower tracing of June 28, 1961, was recorded after a successful dialysis. The P-R now measures .18 seconds, the QRS is normal in duration and shows an increased amplitude. The T waves, although somewhat exaggerated in V2 and V3, are otherwise within normal limits.

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Supported by the Herman C. Krannert Fund of the Indiana Heart Association, Indiana State Board of Health, Indianapolis, Indiana.

minutes. The dye must be injected very slowly to prevent very occasional toxic reactions and very carefully to prevent tissue necrosis and thrombosis at the site of injection from extravasated dye. The transaminases (SGO-T and SGP-T) are extremely sensitive indicators of acute liver injury and may detect viral hepatitis in the pre-icteric stage (up to 60 days).

The use of rose bengal, another protein-bound phthalein dye, in tracer amounts labeled with radioactive iodine (I^{131}) is gaining popularity. Distinctly different patterns have been demonstrated in normal persons, in the presence of bile duct obstruction and in primary hepatocellular disease. Further clinical experience is needed to exactly evaluate the status of this radioactive (I^{131}) tagged rose bengal uptake excretion test among the liver function tests.

II. Differential Diagnosis of Jaundice

Here the results of laboratory tests may prove at times misleading because of the delay in ordering tests and lack of adequate clinical correlation. Tests should be performed as early in the course of disease as possible since secondary functional changes and complications, such as cholangitis may obscure the picture. We prefer not to use the term "obstructive jaundice" since a phase of intrahepatic obstruction or cholestasis occurs quite frequently in the course of hepatocellular disease.

For an intelligent application of laboratory tests in the differential diagnosis of jaundice, one should keep in mind five main alterations of the bilirubin metabolism which may result in jaundice:

1. *Overproduction of bilirubin (hemolytic jaundice):* Prehepatic hemolytic jaundice is easily differentiated from other types of jaundice by clinical history, hematologic findings, including tests of hemolysis, using C_R^{51}-tagged erythrocytes, negative flocculation tests, increased excretion of urobilinogen and absence of bilirubin in urine.

2. *Failure of the liver cells to remove free bilirubin:* An example of this metabolic disturbance is Gilbert's disease or so-called "constitutional hepatic dysfunction." Since only free bilirubin is retained which is insoluble in water and cannot be excreted by the kidneys, no bile appears in urine.

3. *Failure of the liver cells to conjugate bilirubin:* Several types of this non-hemolytic, non-obstructive jaundice occur in children and adults and are probably due to a defective glucuronyl transferase enzyme activity of the liver cell. Again, for reasons stated above, no bile appears in urine.

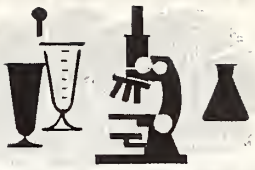
4. *Failure of the liver cells to excrete conjugated bilirubin:* This metabolic abnormality occurs in familial non-hemolytic jaundice and in Dubin-Johnson syndrome which is a form of chronic idiopathic jaundice with still unidentified pigment in liver cells. Since there is a retention of water soluble conjugated bilirubin in the blood, bile does appear in urine.

5. *Re-entry of conjugated bilirubin into the blood stream due to:* a) hepatocellular disease, b) cholestasis (intrahepatic obstruction), c) extrahepatic obstruction.

This group constitutes a problem of great practical importance and involves the differentiation between "medical" and "surgical" jaundice. A list of useful, recommended tests is outlined in Table I. Contrary to the widely prevailing opinion, the level of total serum bilirubin and the ratio of the "direct reacting" and "total bilirubin" is of a very limited differential diagnostic value. Usually in extrahepatic obstruction, there is an increase of "direct-reacting" conjugated bilirubin to over 70% of the total but such an increase may also occur during the cholestatic phase of hepatitis (intrahepatic obstruction).

(To be continued next month)

Path-finder
PUBLISHED UNDER THE AUSPICES OF THE INDIANA ASSOCIATION OF PATHOLOGISTS



A sketchy outline of so-called "Liver Profile"

LEON L. BLUM, M.D.
Terre Haute

The Why, When, and How of Liver Function Tests

ATTENDING PHYSICIAN, Dr. A, confronted with a middle-aged patient with increasing painless jaundice requested: "Liver function test." Dr. B, attending a patient with similar complaints ordered 14 individual liver function tests. Between these extremes lies the desirable optimum. Of course, such a thing as *the* liver function test does not exist. The liver performs numerous metabolic and excretory functions and over 100 liver function tests have been introduced over the years. Most of these tests have been abandoned or used only infrequently because they proved of little value, being either too cumbersome for clinical use or unreliable.

The remaining liver function tests are not specifically diagnostic for a particular liver disease and are best used as a selective group for a definite clinical purpose. Indiscriminate use of all available tests for any individual patient is to be discouraged since it may prove clinically confusing, burdensome for the patient, may overload existing laboratory facilities, and will unnecessarily increase the cost of medical care.

Four Main Reasons for Doing Liver Function Tests

A thorough clinical history and physical examination are essential before considering a "liver profile." Four main reasons for ordering a group of liver function tests are as follows:

1. Detection of minimal or latent liver disease ("screening tests").
2. Differentiation between prehepatic (hemolytic), hepatic (medical), and posthepatic (surgical) jaundice ("differential diagnostic tests").
3. Measurement of severity of liver disease ("functional capacity tests").
4. Detection of residual liver damage ("prognostic follow-up tests").

I. Screening Tests

This group includes sensitive tests suitable for detection of subclinical hepatocellular damage.

Recommended tests:

1. Bilirubin in urine (sensitive test, such as "Icto" test or Harrison spot test).
2. Urobilinogen in urine.
3. Bromsulphalein excretion (5 mg/kg., I. V.).
4. Serum transaminases (glutamic-oxalacetic SGO-T and glutamic-pyruvic SGP-T).
5. Thymol turbidity and flocculation (and/or zinc turbidity).
6. Cholesterol-cephalin flocculation.

Among these tests the bromsulphalein excretion test (BSP) is perhaps the most sensitive liver function test but it must be remembered that only a single function is being tested. The standard interval for measuring retention is 45 minutes but we prefer, if possible, to also measure the 15-minute excretion. In some cases of early liver damage, it is still possible for the liver to excrete 95% of the dye in 45 minutes but to retain more than 25% of dye after 15

concerning the inciting event of coagulation; e.g. whether it be the injury of the platelets and their resultant release of many platelet factors (platelet factor 3 of primary interest at this time); whether it be injury to tissue with its release of tissue thromboplastin into the blood stream; or whether it be combination of these incidents and the probable involvement of many unknown factors. Diseases in this phase are usually considered under the inclusive term of hypoprothrombinemic states. Multiple types of hypoprothrombinemia are known, such as congenital hypoprothrombinemia, stable factor deficiency, labile factor deficiency, and hypoprothrombinemia associated with liver disease or poor intake or utilization of vitamin K.

In phase III of coagulation fibrinogen under influence of thrombin is polymerized to fibrin. Calcium acts as a catalyst in this reaction as it probably does in the formation of thromboplastin and thrombin. Deficiencies of fibrinogen occur as the rare congenital afibrinogenemia and the more common acquired hypofibrinogenemia, e.g. such as that associated with abruptio placenta of pregnancy.

Although fibrinolysin is an integral part of the complete coagulation process, it will not be discussed at this time. The problem of circulating anticoagulants, such as hyperheparinemia and anti-thrombin compounds, is perplexing and fortunately of relatively rare occurrence. Clinically most common hemorrhagic states fall into the following groups: thrombocytopenias, vascular hemophilia (pseudo-hemophilia A), hypoprothrombinemic states, and the classical hemophilia and hemophilioid states.

The diagnosis of these bleeding states involves the usual complete and accurate medical history and physical examination, with special emphasis in the area of signs and symptoms pertaining to coagulation in the patient and his family. Six laboratory tests of great use in the initial assay of the patient as governed by the history and physical are: Coagulation time, bleeding time, platelet count, tourniquet test, plasma prothrombin time and the prothrombin consumption time. The prothrombin consumption time allows one to assay the integrity of phase I of coagulation. During normal coagulation most of the prothrombin is consumed in the coagulation process. If the prothrombin is not consumed and the resulting prothrombin time of the remaining serum is abnormally short, there is a deficiency of some constituent of the first phase of coagulation, e.g., poor formation of thromboplastin. The plasma prothrombin time is a measure of the activity of phases II and III since thromboplastin is added to the reacting mixture during the procedure. Using the information obtained from the above simple tests, more definitive assays of individual factors can be undertaken. The laboratory findings in common hemorrhagic states are listed in Table I.

There are some variances of the above in stable and labile factor deficiencies. The coagulation time is normal in stable factor deficiency. Bleeding time is prolonged in labile factor deficiency and the prothrombin consumption time is abnormally short in labile factor deficiency.

Bleeding time is a measure of the ability of the capillaries to close after having been ruptured by a standardized puncture. The mechanism is unknown but may be related to the morphologic and physiologic character of the capillaries and to the activity of platelet inherent in themselves to form thrombi or dependent upon a chemical compound such as serotonin. Coagulation time

TESTS	THROMBO-CYTOPENIA	VASCULAR HEMOPHILIA	HYPOPRO-THROMBINEMIA STATES	HEMOPHILIA
Coagulation time	Normal	Normal	Prolonged	Prolonged
Bleeding time	Prolonged	Prolonged	Normal	Normal
Platelet count	Reduced	Normal	Normal	Normal
Tourniquet test	Positive	Negative	Negative	Negative
Prothrombin time	Normal	Normal	Prolonged	Normal
Prothrombin consumption time	Abnormally short	Normal	Normal	Abnormally short

Table I

LABORATORY MEDICINE

Published periodically as a review of clinical laboratory procedures suitable for laboratories with minimal equipment.

Bleeding and Coagulation Time

A. WENDELL MUSSER, M.D.*

IN THE PAST FEW years the mechanism of the coagulation of blood has become extremely complex. As the intricacies of the mutually dependent reactions increase, one becomes more aware of the fact that the basic reactions of coagulation are chemical in nature, but are strictly governed by the homestatic principles of the closed vascular system of the body. The basic theory of blood coagulation, as proposed by Morawitz in 1904 revolved itself around two basic reactions: One involving the transformation of prothrombin to thrombin under the pseudo-catalytic effect of thromboplastin and calcium; the other, the polymerization of fibrinogen to fibrin under the influence of thrombin. Since that time much confusion has arisen concerning the details of those reactions and their prerequisite side reactions. We have not been able to completely assay this intricate system in vitro as well as we have theorized its existence in vivo.

Coagulation Phases

Excluding for our purposes of discussion the vascular hemophilias (pseudo-hemophilias, the telangiectasias, and other vascular structural abnormalities (such as Ehlers-Danlos syndrome), we shall concern ourselves with three basic phases of coagulation and the disease entities pertaining to each. Thinking of coagulation in phases tends to make less incomprehensible an otherwise confusing picture. The first phase of coagulation concerns itself with the formation of thromboplastin. It is in this phase that the interaction of the plasma factors (such as thromboplastinogen (AHG), plasma thromboplastin component (PTC), and the plasma thromboplastin antecedent (PTA)) and platelet factors results in the formation of thromboplastin. The hemophilias and the true thrombocytopenia are classic examples of diseases in this phase.

Phase II of coagulation involves the formation of thrombin by the transformation of prothrombin catalyzed by the thromboplastin, by the thrombin itself, and by such factors as V and VII, the so-called labile and stable factors respectively. Factor V and VII are considered by some to be intricately involved in the formation of tissue thromboplastin as well as the intrinsic thromboplastin produced within the vascular system at the onset of the coagulation process. Argument is still being put forth

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is a rough guide to the overall coagulation process. It is a screening test for hemorrhagic diseases. It is not a reliable guide to coagulability of blood. According to Quick, all methods based on the use of capillary blood are unreliable; venous blood should be used. Simple methods for the bleeding time and coagulation time are given below.

Methods

Bleeding time (Duke's Method): Cleanse the finger or the lobe of the ear with alcohol and puncture deeply enough so that blood flows freely without squeezing. Note the time of the first drop. Every 30 seconds, the drop of blood is blotted with a filter paper. If the bleeding time is prolonged, do not continue the test longer than 20 minutes unless detailed time information is of value. If bleeding continues after 30 minutes, apply pressure and a coating of collodion. The time interval between the appearance of the first drop and the removal of the last represents the bleeding time.

Normal Value: 1-3 minutes

Coagulation Time (Lee & White Method): Rinse a sterile 5 ml. syringe and needle and two 8 x 75 mm. tubes with sterile physiologic saline solution. Rinse each twice and expel all the solution. Withdraw 5 ml of blood, applying the tourniquet just before the venipuncture is made. Traction on the plunger, if used at all, should be gentle to avoid entry of air bubbles into the syringe. If the vein is not entered on the first attempt, discard the needle and syringe and use another syringe and needle that has been rinsed twice in sterile saline. Time the beginning of the test with a stop watch when the blood first enters the syringe. Remove the needle from the syringe and place 2 ml samples of blood in each of the two tubes. Allow the blood to run down the sides of the tube gently to avoid agitation. Discard the remaining 1 ml of blood in the syringe. Place the two tubes in a water bath at 37.5° C. At intervals of approximately 1 minute observe one of the tubes for coagulation by removing it from the bath and tilting it gently. The endpoint is reached when the tube can be inverted without loss of contents. When this occurs for the first time, the second is observed in a similar manner. The average time, in minutes, required for the blood to coagulate in the two tubes is reported as the coagulation time. If there is a difference of more than 5 minutes between the coagulation time of the two tubes, the longer time is reported.

Normal Values: 5-10 Minutes

REFERENCES

1. Biggs, R., Macfarlane, R. G.: *Human Blood Coagulation and Its Disorders.* 2nd Edition, 1957, Charles C. Thomas, Springfield, Illinois.
2. De Nicola, P.: *Laboratory Diagnosis of Coagulation Defects.* 1st Edition, 1956, Charles C. Thomas, Springfield, Illinois.
3. Diamond, L. K., Porter, F. S.: The inadequacies of routine bleeding and clotting times. *New Eng. J. Med.* 259:1025-1027, 1958.
4. Duke, W. W.: The relation of blood platelets to hemorrhagic disease; description of a method for determining the bleeding time and coagulation time and report of three cases of hemorrhagic disease relieved by transfusion. *J.A.M.A.* 55:1185, 1910.
5. Lee, R. I., White, P. D.: A clinical study of the coagulation time of blood. *Amer. J. Med. Sc.* 145, 495-503, 1913.
6. Morawitz, P.: Beiträge zur Kenntnis der Blutgerinnung. *Beitr. Chem. Physiol. U. Path.* 5: 133, 1904.
7. Quick, A. H.: *Hemorrhagic Diseases.* 2nd edition, 1957, Lea and Febiger, Philadelphia, Pennsylvania.
8. Quick, A. J., Honorato, R. C., Stefanini, M.: Value and limitations of the coagulation time in the study of the hemorrhagic disease. *Blood* 3: 1120-1129, 1948.
9. Stefanini, M., Dameshek: The Hemorrhagic Disorders. 1st Edition, 1955, Grune and Stratton, New York.
10. Tocantins, L. M.: *The Coagulation of Blood, Methods of Study.* 1st edition, 1955, Grune and Stratton, New York. ◄

The Journal of the Indiana State Medical Association

MEDICAL ESSAY CONTEST

for

Interns and Residents of Indiana Hospitals

During the intern and resident year of 1961-62 The Journal is sponsoring a medical essay contest open to interns and residents of hospitals in Indiana. The subject matter will be limited to clinical experience observed primarily in the teaching hospital of the author. Presentations may contain up to 4,000 words and preferably should be illustrated with clinical pictures, graphs or tables.

A first prize of $100.00, a second price of $75.00 and a third prize of $50.00 will be awarded. All entries are eligible for consideration for publication in The Journal.

Manuscripts will be judged by a prize award committee selected by the Editorial Board of The Journal and by the Dean, Indiana University School of Medicine.

Manuscripts should be prepared in accordance with the specifications outlined on the masthead page of The Journal.

Entries must be submitted prior to May 1, 1962.

The manuscript itself is to be identified only by the title. The author's name must not appear in the manuscript. Instead, a special title page bearing the title and the author's name and address should accompany the paper. Mail entries to Mr. James A. Waggener, 1021 Hume Mansur Bldg., Indianapolis 4.

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Irvin W. Wilkens, M.D., Indianapolis . . . . Dec. 31, 1963
Horold D. Lynch, M.D., Evansville . . . . . Dec. 31, 1964
Jene R. Bennett, South Bend . . . . . Dec. 31, 1964
Samuel R. Mercer, M.D., Fart Wayne . . . . Dec. 31, 1962
Fronklin F. Premudo, M.D., Hommand . . . . Dec. 31, 1962

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Hospital Bed Increase Lags Behind Population Growth

HOSPITAL BEDS in the United States increased faster than the population from 1900 to 1940. During World War II the increase was even faster due to the building of military hospitals. Since 1946 the number of beds has increased at a rate less than the population increase, 15.5% as compared with 28.5%

The above figures are taken from a Health Information Foundation bulletin and cover all hospital beds, federal, nonfederal, private, government, long-term, short-term, general and specialized. Actually, in terms of the type of hospital bed most often referred to in relation to the private practice of general medicine, the ratio of short-term general beds has increased a little since 1946. In 1946 there were 3.38 short-term general beds per 1000 people, in 1960 the rate was 3.55.

Foundation president George Bugbee points out that with as much general hospital construction as has occurred since World War II it is difficult to believe that we are at about the same level as we were at that time. A population increase of 40,000,000 since 1946 explains the difficulty. An expected population increase of 45,000,000 by 1975 explains why there will be more difficulties.

However, it is the short-term general bed which takes care of the most patients, and is the type of facility which should be developed fastest. Actually nonfederal long-term beds account for one-half of all hospital beds, but due to their use for psychiatric, tuberculous and other specialized cases with long-term hospital stays they account for a very few admissions as compared with the rapid turnover in short-term general beds (92% of all hospital admissions in 1960).

Despite the generous support given to voluntary hospital construction fund-raising and the tremendous support of federal funds through Hill-Burton assistance, the country still does not have enough short-term beds. In addition to this many of the

older hospitals of the general type are in need of extensive modernization and repair and the Foundation reports that the shortage of beds for the care of the chronically ill is more marked than that in the short-term category.

About $7.5 billion has been expended for hospital expansion since 1945. This is a good indication of how much the public values its hospitals. It is also an indication of what must still be spent to bring up our older hospitals to date, and to build the new ones made necessary by population increase. The future also holds the possibility that our present ratio of 3.55 short-term general beds per 1000 is not enough.

Joseph Lister: 1827-1912

JOSEPH LISTER died in London on February 11, 1912, aged 84; to him the medical profession is deeply indebted for his concept of antiseptic surgery.

Joseph Lister's early education was in the Quaker schools of England. In 1844, he entered the University College, London. He embarked upon his medical career when he received his MD degree in 1852. Among his early achievements was the demonstration of a dilator muscle as well as a sphincter muscle for the iris and, in addition, the demonstration of "pilar erector muscles" without which we would not demonstrate "goose flesh" during times of stress.

Joseph Lister's academic career started in 1853 when he joined Professor Symes at Edinburgh as a clerk. In 1855 he became a lecturer in surgery in the College of Physicians, and surgeon to the Royal Infirmary. At the age of 33 he became Regius Professor of Surgery at the University of Glasgow and devoted his full energy to the teaching and practice of surgery.

In 1861 his attention was focused sharply upon the problem of suppuration and gangrene on the surgical wards. The contrast of healing of simple fractures without sepsis as compared to compound fractures with inevitable suppuration was apparent. He recognized that inflammation and suppuration and sometimes gangrene were certain to follow any surgical wound. In 1865 Dr. Thomas Anderson pointed out to Lister the similarity of Louis Pasteur's work on fermentation and putrefaction to the problem of wound suppuration. From his further study, Lister concluded that the germs of the air and our environment were responsible for the wound suppuration.

In May of 1866 the era of antiseptic surgery arrived with Joseph Lister's carbolic acid treatment of compound fractures—"a piece of calico soaked in crude carbolic acid —introduced into the wound with forceps, a piece of lint soaked in carbolic acid placed over the wound—covered by a slightly larger piece of lead to prevent evaporation." After nine months' experience with compound fractures, there were no cases of suppuration nor hospital gangrene to report. The first medical paper to report this method appeared in *Lancet,* 1867.

This antiseptic technic was carried further to include the soaking of ligatures and instruments in carbolic acid and ultimately the carbolic acid spray to purify the atmosphere.

In 1869 Joseph Lister became professor of surgery at Edinburgh and later in 1877 returned to his alma mater as professor of surgery at King's College in London. Joseph Lister's contributions to medicine were at first not well received in London until 1881 when it was proclaimed at the Seventh International Medical Congress by Dr. Volkman that Lister's name and England's were indissolubly bound with this great advance in surgery.

Unlike other scientists Lord Lister received world and dominion recognition for his contribution to medicine. It was Lister's antiseptic surgery that paved the way for our present concept of aseptic surgery.—J. S. Battersby, M.D., Indianapolis.

The Medically Uninsured

SUCH A LARGE proportion of Americans now have some form of medical insurance that the insured state is widely thought of as being normal, and the state of being medically uninsured is conversely considered as being at least slightly abnormal.

Almost exactly three-fourths of all the people of all ages in the country have health insurance protection. In a few states the percentage of those covered is as high as 90. The east north central states (Indiana, Illinois, Wisconsin, Ohio and Michigan) have an 81.6% average coverage. The mountain states and the southern states are in the 50% range or a little higher. The country as a whole has 75% coverage.

The Health Information Foundation in its October, 1961 Bulletin reports on a survey of the 25%, with data on why and suggestions on how to make it possible for more people to be covered by voluntary insurance.

In general there are three types of uninsured individuals: those who do not need coverage, those who do not want it, and those to whom it is not available as a condition of employment and who do not wish to go to the trouble of acquiring individual policies. Those who did not want insurance gave two reasons: "Can't afford it" or "Don't believe in it."

Coverage is below average among families whose wage-earners work in agriculture, forestry, fishing or construction. Non-white persons constitute a larger proportion of the uninsured than of the insured (18%:7%) and people over the age of 65 also contribute heavily to the uninsured group (17%:6%). Larger proportions of the uninsured were full-time housewives and retired persons.

Of all the uninsured individuals 88% reported that coverage was not available through their employment; 74% of the uninsured said that they had not had insurance during the year covered by the survey, and also had never had hospital expense insurance at any time.

Actually, except for the people who do not need medical coverage such as those in the armed forces, and the small percentage who do not want it, almost every uninsured person could be transferred to the insured group if a widespread educational and selling campaign could be directed to the right places.

The Medicine Show

THE HARASSMENT of drug makers by the Senate Kefauver Committee is only one episode in a deliberate campaign of hostility toward the whole American system of free enterprise.

This is the current example of the way government control advocates operate to make "profits" an object of scorn. As Nebraska's Senator Roman L. Hruska warns, the drug manufacturers are only the whipping boys of the moment.

Speaking before a recent meeting at Somerville, N. J., Senator Hruska summed up as well as any one who has attempted it the peril contained in the prolonged inquisition of the drug industry—a congressional medicine show if there ever was one.

He appealed to the old-fashioned American concept of fair play to come to the rescue of the makers of America's ethical drugs, who "have figured so indispensably in the revolution of medical practice in the past 20 years."

The primary idea of concentrating fire on the drug makers—who have been busy producing medicine instead of lobbying for political favor—is not to make laws but to generate publicity for the anti-profit point of view. As Senator Hruska points out, the inquisitors first interview witnesses in a screening process, "not to discover people who can give impartial and educated testimony, but to book for public appearance those worthies who will parrot the preconceptions of the subcommittee staff."

And by the time the industry has had time to prepare the complicated answers required to refute wild, sweeping charges,

still another, more startling accusation has stolen the scene.

Lost in the whirlwind of ill-considered "high-price" generalizations regarding new drugs, for example, is the fact that a typical profit percentage in pharmaceutical manufacturing is in the neighborhood of 12%, comparable, as Hruska says, "to other industries subject to extraordinary risks, rapid obsolence and costly research."

For most of these companies, research trial-and-error costs millions of dollars for which there often is no discovery worth marketing and which brings in no return whatever.

The few "miracle" drugs which have been discovered, purified, processed and marketed have been expensive to the public for a time but have gone down in cost as their mass production became possible. The Kefauver subcommittee has refused to look beyond the mere surface. It has not delved into the real facts at all. If it had, it by this time would have been ready to award our drug makers the highest medal in the power of the government to bestow—not only for being ethical members of the free enterprise community, but for the essential aids they have given to this medical generation's spectacular advance in healing.

Americans should be eternally grateful to, not condemnatory of, their medical drug manufacturers, and concerned lest they be deprived, by legislative strait-jacketing, of the opportunity to continue their progress by means of a fair return on their investment.—*The Indianapolis News*, January 13, 1962.

Editorial Notes . . .

Pearl Harbor Day, last December 7, was the occasion for open house inspection ceremonies in 22 Civil Defense Medical Stockpile Depots over the country. The largest single item in the 260 million dollar inventory is the Civil Defense Emergency Hospital. This is a packaged 200-bed hospital capable of being set up in almost any site. The U. S. Public Health Service is charged with the accumulation and maintenance of the CD supplies. It reports that there are now 1930 200-bed hospitals on hand, 1907 of which are prepositioned for ready use in event of disaster. Indiana has 29 such hospitals in storage.

Dental care is the most neglected of all the health services. For a country which is presumably health-conscious Americans achieve a high degree of dental neglect. Health Information Foundation reports that a California survey showed that only 3% of a large group of 17-year-olds were without dental decay. There are probably as many as 700 million unfilled cavities in the United States. When polled, 88% of the public say that everyone should see the dentist regularly, but only 40% do so. Expense is a deterrent, but the amount of neglect is much greater than this factor would account for. The present number of dentists and dental technicians could not take care of the entire problem, but there is no demand for more dental care, and no reason to train more dentists until there is more demand. The Foundation thinks that public education is the key to the problem.

William S. Apple, Secretary of the American Pharmaceutical Association in testifying before the Kefauver committee, reported among other things that each American annually spends $37 for tobacco, $54 for liquor and $12 for prescription drugs. He also alleged that if every pharmacist eliminated his fee and every pharmaceutical plant went on a non-profit basis, some people would still complain about drug costs.

Personnel statistics on the British health scheme: Each year one-third of the British medical graduates migrate to Canada, United States, Australia and New Zealand. Over 3,000 doctors have thus moved in the past five years. There are nearly 10,000 doctors in England of less than senior status. One-half of these are British; the other half are mostly from India and Pakistan.

T. F. Davies Haines, president of Ciba, in addressing Yale University medical stu-

dents on the subject "The Two-Way Street: Pharmaceutical Promotion and Its Impact On The Practice of Medicine"—Stated as follows: "We are business men, yes. But we are not selling bubble gum on the mass market, or promoting a new king-size cigarette. We're communicating with a purpose. We communicate in order that these agents—this amazing arsenal of weapons—will be understood and used. And very frankly, we also communicate in order to preserve the economic system which produced them. We want to nourish this ferment which feeds upon itself, which gave us the compounds of today, and will seek and find new and still better prescriptions tomorrow."

———

Since 1955 the A.M.A. Study Group on Blood Dyscrasias has received 1504 reports of blood dyscrasias which have been associated with the administration of 411 different drugs. One hundred thirty-eight new cases were reported in the latest 6-month report. The Study Group did not find any new possibly toxic drugs in the 6-month period, but reported that the additional cases reported as due to the drugs already listed "did re-emphasize the facts that many drugs are potentially toxic and that there is always a calculated risk in administering drugs to patients. In order to serve in the medical profession in the most efficient manner, the Study Group urges every physician to report to the A.M.A. Council on Drugs immediately if he should suspect that a blood disease may have been caused by a drug or a chemical. A smoothly-functioning reporting system will aid the study group in the early detection of hematotoxic properties of new drugs and enable it to alert the medical profession to such potential dangers. Report forms can be obtained from the Council on Drugs, American Medical Association, 535 North Dearborn St., Chicago, 10."

Antibiotic Certification Unnecessary

At present, the Food and Drug Administration certifies five antibiotics and insulin. These costly precautions were first applied to penicillin during World War II. . . . Even though these antibiotics have now been produced in pure crystalline form for years by firms of proven competence, the F.D.A. has stopped certifying only one form of one antibiotic. . . . As a result, reliable manufacturers with years of experience are still being forced to add to their costs by paying fees to support this certification program. During fiscal 1959, this covered only six drugs but it cost more than 1.2 million dollars. That same year, the F.D.A. used less than 9 million dollars for all its other enforcement activities.—Elmer B. Vliet, Chairman of the Board, Abbott Laboratories, to American Society of Oral Surgeons.



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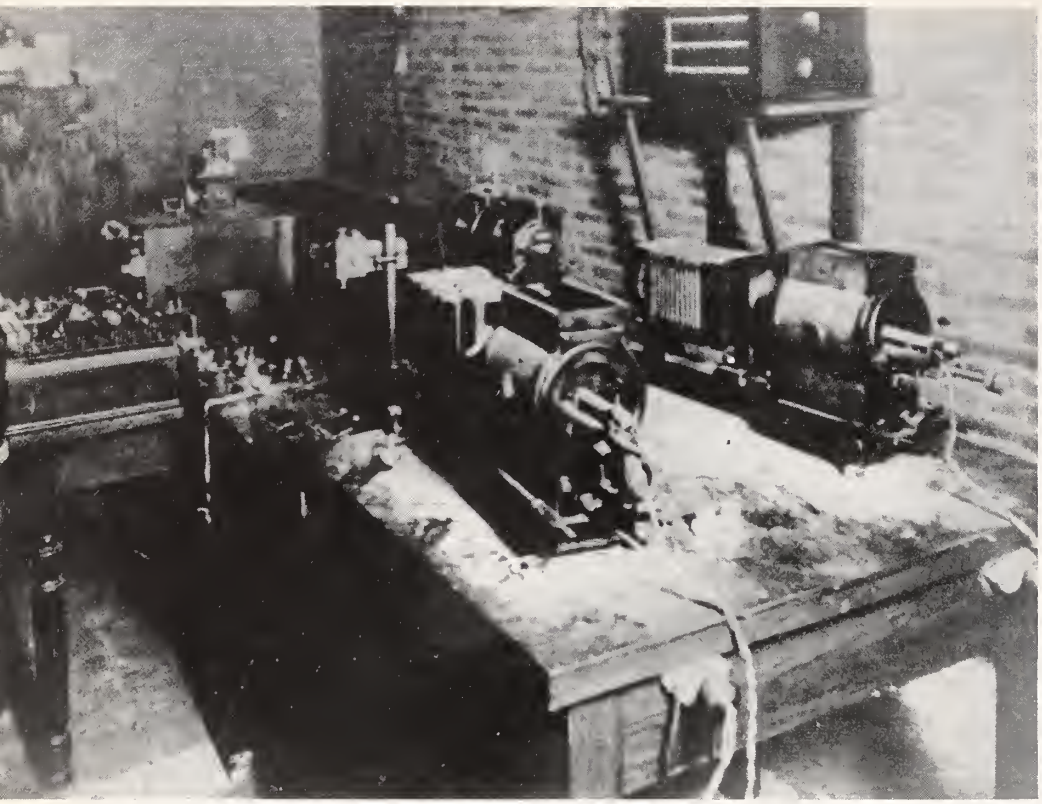


FIGURE 1
HEART STATION Johns Hopkins Hospital 1910, showing first and second instruments.

Electrocardiography in the Making

*GEORGE S. BOND, M.D.**
Indianapolis

CARDIOLOGY was in its infancy at the turn of the twentieth century—just beginning the tremendous surge of experimentation and progress that has made it what it is today. Instead of being an independent clinical branch it occupied only a small chapter in the general textbooks of medicine. Hirschfelder was just beginning to consider writing the first American text on heart disease which did not appear until 1909. In saying this, I do not wish to belittle the work that had been done before 1900, because many noteworthy advances had been made that are still accepted. However, in the last sixty years our knowledge of cardiology has grown far more than in all the preceding years.

Medical thinking at the time was still under the influence of anatomic pathology. Autopsy findings were the basis of every clinical diagnosis. Consequently, the terms mitral stenosis or aortic insufficiency were complete diagnoses, and little thought was given to the underlying cause or progressive nature of the condition. For this reason, physical diagnosis received a great deal of emphasis so that the doctor would be able to distinguish accurately the different heart lesions. Thus he could arrive at a correct conclusion as to the structural dam-

Dr. Bond was directly in charge of the first electrocardiogram used in the United States and is therefore especially qualified to write the article of historical interest printed herewith. The journal is indebted to Dr. Bond for making this paper available.

age that had taken place in the heart. This concept could be elaborated further by the explanation as to whether the heart muscle had compensated for the lesion or was in a state of decompensation. Under the term chronic myocarditis were classified all the many forms of heart failure not associated primarily with valvular lesions, and in which the heart muscle seemed to be the fundamental fault. This term was later changed to myocardial insufficiency to designate that it was not essentially an inflammatory process. With this general confusion as to the underlying causes, many errors occurred in determining the progress and prognosis of the heart condition in the individual case. For example, how could one compare the course and outcome of a case of rheumatic aortic insufficiency with a similar lesion due to syphilis. This uncertainty even led to the joke writers in the newspapers telling of the doctor who advised his heart patient to make his will as he had just a few months to live, only to have the patient out live him by many years.

Some phases of cardiac disease were well known. Angina pectoris, for example, had been well described years before, in the picture we now accept, and in some way was thought to be associated with coronary arteriosclerosis. However, the entire conception of coronary thrombosis and infarction was to come years later. Endocarditis included all the phases of inflammatory disease of the inner coat of the heart and little effort was made to differentiate them. Subacute bacterial endocarditis was not distinguished until Lipman made it a clinical entity in 1910.

Treatment Purely Empirical

In treatment few drugs were available then as compared to the large variety we have today to combat each phase of the heart problem. Complete bed rest was utilized in almost every heart failure as about the only means of giving the patient a chance to build up sufficient strength to bring about recovery. Oxygen was very little used because the means of administration were faulty and the patient suffered more than he benefited. Morphine was the main standby because a patient could be drugged into complete quiet in which he ceased to appreciate his dyspnea and consequently his heart could rest and have a chance to recover. Digitalis was given almost routinely in the form of an infusion or tincture, because the idea prevailed that in some way its use made the heart do something it had not been able to do before. The effect that was expected was much more than could be accounted for by the slowing and increased contraction of the heart. Most doctors considered it a must in almost any form of heart disease, but the doses given were so small and uncertain that it is doubtful if it made much difference.

Strychnine and caffeine were used, but probably had more effect on respiration. Nitroglycerin even then was established to use for attacks of angina pectoris. Sodium nitrite and potassium nitrite were given to prevent the attacks, with little success, although much the same can be said of our modern drugs for that purpose. In edema, the modern diuretics were unknown and if rest and position would not cause it to go down it had to be removed by purging or by Southey's tubes inserted in the legs. In addition many doctors had their own specific remedies which may or may not have given any benefit. In the main treatment was purely empirical. All in all the knowledge about hearts in that day was rather general with few specific details and very little understanding of the mechanical factors that influence the heart's action in disease.

The physiological approach to the understanding of disease processes was just beginning and since the heart was a mechanical organ it was particularly adaptable to this mode of thought. Most of the physiology of the heart and blood vessels had been worked out long before and it was easy to apply this to the abnormal heart. Also the circulation lent itself very readily to mechanical instrumentation. The physiologists had worked out most of the details about the blood pressure in the arteries and veins. They were not applied until 1897 when the Riva Rocci apparatus, similar to that used today, made taking patients blood pressure easy and accurate. The clinical

ELECTROCARDIOGRAPHY
Continued

application then developed very rapidly and its application to the abnormal was intensely studied. Improvements to the instrument were made, also the method of determining systolic and diastolic pressures. The palpatory method in use at the time consisted of feeling the radial pulse below the cuff. When the pressure in the cuff was dropped the first pulsation felt at the wrist was the systolic pressure and the point of greatest pulsation was the diastolic pressure. They were usually 10 mm of mercury lower than they should be. Some instruments at that time such as the Ehrlanger which graphically recorded these pulsations gave very accurate readings. The Korotkow or auscultatory method as used today was not introduced until about 1906.

MacKenzie's Work Gives Big Stimulus

Hypertension was appreciated clinically, but it was largely considered as an indication of some primary disease such as nephritis, cerebral lesions, aortic insufficiency, etc. The concept of an essential hypertension was not recognized until some time later. The next, and probably the most epoch making application of the physiological approach to heart disease, was that of James Mackenzie whose book was published in 1897. For years he had been working with simultaneous tracings of the venous pulse with other pulsations produced by the heart. By correlating these, he was able to tell the sequence of contraction of the different chambers of the heart and show their relative timing. Since this was done on patients with comparative ease it made possible the study of the clinical abnormalities of the heart's contraction. While most of the cardiac arrhythmias had been shown by previous workers, Mackenzie gathered all the facts together and pointed out the changes in pulsations which would give the diagnosis clinically. Mackenzie's work was quickly taken up both here and abroad and gave a big stimulus to further study of heart rhythm.

Trials with the Polygraph

In hospital wards in the early 1900's you frequently saw men at the bedside with the little polygraph trying for hours to get simultaneous tracings. This was not an easy thing to do, if you imagine yourself with two hands holding the tambours at just the right pressure on the carotid and jugular pulse, the apical tambour in your teeth, and starting the machine running with your elbow. Even after the tracing was obtained one could never be absolutely certain of the interpretation as the slightest change in pressure or position on a tambour might change the entire picture. While the work did clear up and classify the cardiac arrhythmias its greatest effect on heart disease was to change the thinking from the anatomic to the physiological point of view.

With the desire to investigate further along this line hampered by the frustrations of taking polygraph tracings, it is no wonder that workers hailed with delight the news that another instrument, used abroad, would do the same thing without the difficulties. This was the electrocardiograph devised by the Dutch physiologist, Willem Einthoven. It would show all the conditions that the polygraph showed and also some additional data. Best of all it did not make much difference how the connections to the patient were made, the tracing would always be accurate.

Like most inventions the electrocardiograph did not spring into existence over night but was a slow evolution of procedures leading up to its accomplishment. Most inventions are usually achieved when some unrelated thing is developed successfully and this, when applied, makes the original project possible. A good example of this is the airplane. Men knew the principles of flight and man had been lifted into the air by kites long before the Wright Brothers. The big problem was insufficient propulsive power without too much weight. With the invention of the gasoline engine the whole thing largely solved itself. Thus it was with the electrocardiograph, the success of which depended on finding a very sensitive recording device. It had been known from the time of Galvani that the heart gave off electrical charges with each beat. Koelleker and Mueller in 1856 demon-

Continued on page 218

New Robanul™ signals a major improvement in duodenal ulcer therapy

From Robins research comes Robanul (generically, Glycopyrrolate), first of the "rigid-ring" anticholinergics, representing what may well be the most important advance in anticholinergic chemistry in a decade.

Clinically, both Robanul and Robanul-PH (with phenobarbital) have demonstrated a remarkable ability to provide within 90 minutes—and maintain for 6 to 10 hours—those nearly ideal pharmacologic healing conditions that mean prompt relief of ulcer pain and a successful recovery of your ulcer patient.

There are always important questions about any new therapeutic agent. Below are answers to some of the common ones asked about Robanul:

ROBANUL™

Glycopyrrolate (Robins), 1.0 mg. per tablet (U.S. Pat. No. 2,956,062)

ROBANUL-PH™

Robanul with phenobarbital, 16.2 mg. per tablet

First of all, what does "rigid-ring" mean?

Briefly, this: it describes the use of a fixed pyrrolidine pentagon, or rigid ring, which guarantees a constant 2-carbon distance between reactive parts of the molecule. In line with the "receptor site" concept of the mechanism of action of anticholinergics, this almost inflexible molecule is theoretically more likely to "fit" only certain receptor sites.

Theories are all right, but is Robanul really more selective?

Yes! Evidence of its selectivity can be seen by the surprising lack of typical secondary anticholinergic effects (dry mouth, blurred vision, etc.) that occur at the effective dosage level of 1 to 4 mg. a day. Out of 499 duodenal and gastric ulcer patients treated at this level in investigative studies, only 4.4% had complaints of moderate to severe effects.

How is it for reducing gastric acid?

One investigator[1a] found that a 2 mg. dose of Robanul lowered acid secretion 73% in one hour (compared to a basal-hour period) and 84% in two. A 4 mg. dose dropped secretion over 94% in one hour and 97% in two!

What about acidity, or concentration of acid?

In one study, glycopyrrolate produced significant suppression of pH to 4.5 or higher in 5 of 5 duodenal ulcer patients given a 4 mg. dose, 7 of 8 patients given 2 mg., and 4 of 5 patients given 1 mg.[1b]

Will Robanul depress gastric hypermotility?

In another study[2] with six subjects Robanul decreased gastric motility in every patient. Within 40 minutes after the administration of 2 mg. of Robanul, the frequency of gastric antral contractions decreased from 1 every 24 seconds to only 1 every 2½ minutes. Young and Sun[1c] found a similar effect. Moreover, their results in 7 patients indicated that Robanul, in a dose of 2 mg., did not produce delay in gastric emptying or intestinal transit.

What's the best dosage schedule for Robanul?

It should be adjusted for each patient, and this is where Robanul offers another big advantage. Its "titratability" is unmatched among anticholinergic agents. Robanul's potency makes possible a recommended starting dose of only one milligram t.i.d. Yet its selectivity usually permits much leeway for dosage adjustment upward as necessary, to achieve the most effective dose level for each patient while maintaining a low incidence of undesirable effects on other organ systems.

Is there anything else Robanul does for peptic ulcer?

Much more! For instance, 2 mg. cuts pepsin production about 50% in two hours; 4 mg., about 65%.[1a]...There is evidence that Robanul combats hormonal aspects of gastric secretions as well as vagal in many patients... ...Its activity lasts long enough to reduce acid secretion all night long.[3]...Many ulcer patients have remarked about its fast relief of pain....

One last question: Why not prescribe Robanul for your next duodenal ulcer patient and see for yourself just exactly how effective it is?

References: 1. From the New York Academy of Sciences, Conference on Peptic Ulcer, Oct., 1961. (a) H. C. Moeller. (b) D. C. H. Sun. (c) R. Young and D. C. H. Sun. 2. W. C. Breidenbach: Investigative clinical report, March, 1961. 3. I. A. Feder: Investigative clinical report, May, 1961.

Additional information upon request.

A. H. Robins Company, Inc., Richmond 20, Va.

ELECTROCARDIOGRAPHY

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strated with the nerve muscle preparation that there were two electrical surges with each heart beat. However, there was no means available to register these currents graphically because there was no instrument that could detect such small currents occuring in such rapid succession. The Darsonval galvanometer though sensitive required time to swing to its maximum and was not dead beat, i.e., it had an overfling in each direction due to the weight of the coil. Thus, it was not adaptable to record changes in currents taking place several times per second.

Einthoven Accepts The Challenge

In 1882 Waller, working with the very sensitive device known as the capillary electrometer obtained curves from the human heart similar to those taken today with the electrocardiograph. Unfortunately these curves had to be corrected and plotted to compensate for the inertia of mercury which was the moving element in the instrument. This procedure required several hours of mathematical calculation and consequently, the instrument was inconvenient for routine clinical use. Waller however, did pass on the idea that the heart currents were transmitted to the extremities, and this was the basis for the three leads of the electrocardiogram.

Gotch and Burch in England and Einthoven in Leiden, Holland, continued to work with the capillary electrometer, but it was soon apparent that the whole problem of recording heart currents depended on developing a recording instrument that would be very sensitive, instantaneous in action and dead beat. Einthoven accepted this challenge, and the final result was the development of the string galvanometer which had all the necessary characteristics for the purpose.

It has been stated that Einthoven took the idea from Ader who devised a receiver sensitive enough to record the faint signals at the other end of the Atlantic cable. However, this may not be true, because while the two instruments were similar in form, they both utilized an electrical principle which had been well known for years and Einthoven undoubtedly was aware of it.

The fundamental principle involved was that an electric current passed through a magnetic field will be deflected to one side or the other depending on whether it coincides with or opposes the lines of force of the magnetic field. If the conductor carrying the current has practically no weight, it will be deflected with the current and this movement can be recorded. The Einthoven string galvanometer consisted of two heavy electromagnets between the poles of which is suspended a fine fiber attached at both ends like a bow string. This is the conductor and swings back and forth with the deflected current. This silver plated quartz fiber about four inches long has a diameter about one half the width of a red blood corpuscle and is almost without weight. Its shadow is magnified by a microscope and cast upon a moving film which records the oscillations. Einthoven quickly applied the galvanometer to recording human heart currents and with the mechanical aid of the Edelmann Company, in Munich, Germany, developed what is now called the electrocardiograph. Investigators abroad quickly took up the work making important contributions, particularly Thomas Lewis in London.

Difficulties and Disadvantages

In the summer of 1909 Dr. Lewellys F. Barker, then professor of medicine at Johns Hopkins, was in Europe and was fascinated by the work there using the electrocardiograph. Before he left, he ordered an instrument sent from Edelmann's to the Johns Hopkins Hospital.

The instrument at that time consisted of individual parts mounted separately and requiring considerable space. The room selected had been an old storage vault in the basement of the hospital, chosen because it was freer of mechanical vibration and away from alternating electrical current which the electrocardiograph would pick out of the air. In spite of this however, it was necessary to mount the galvanometer on a brick pillar set in sand, otherwise every streetcar passing the building made

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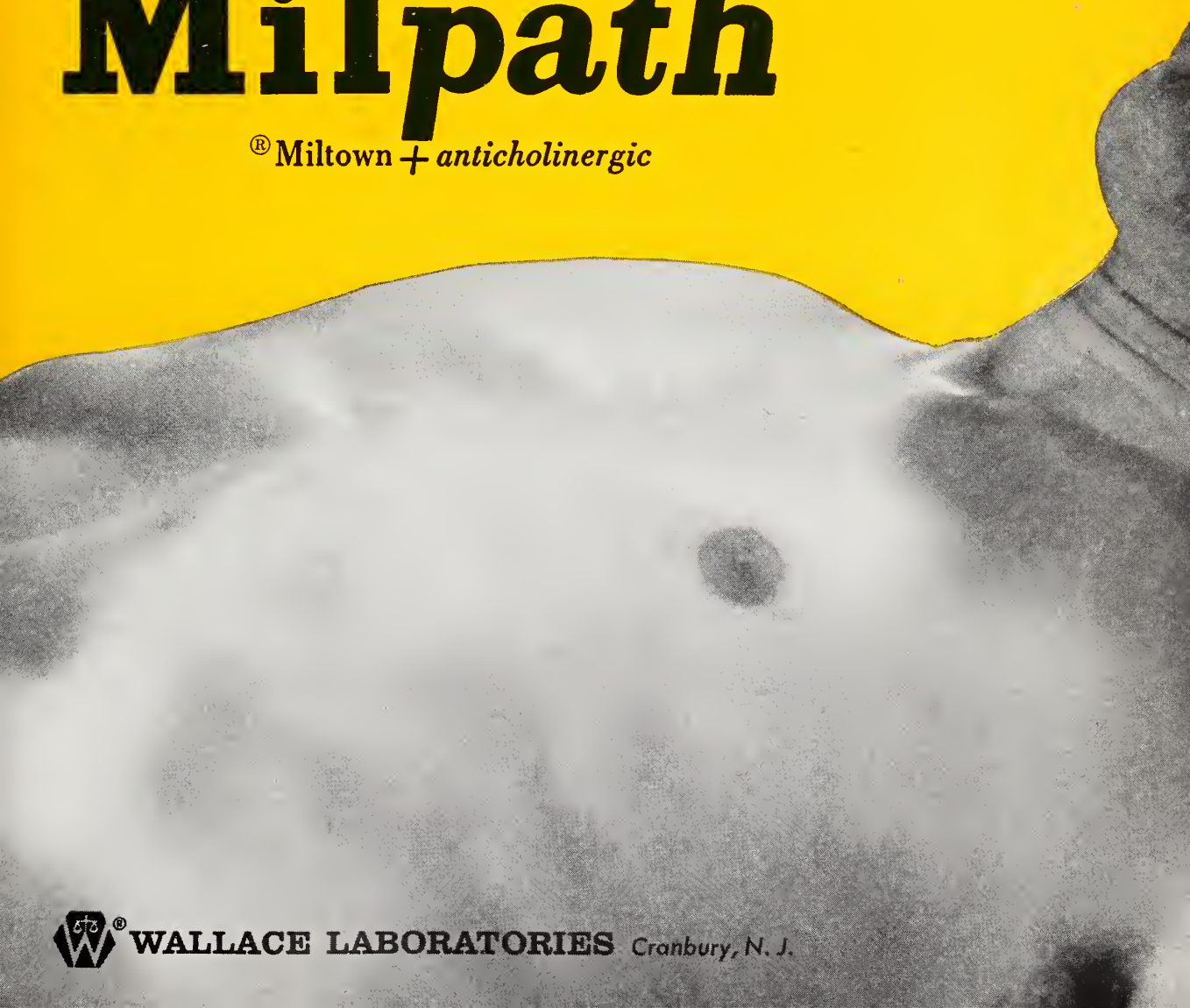
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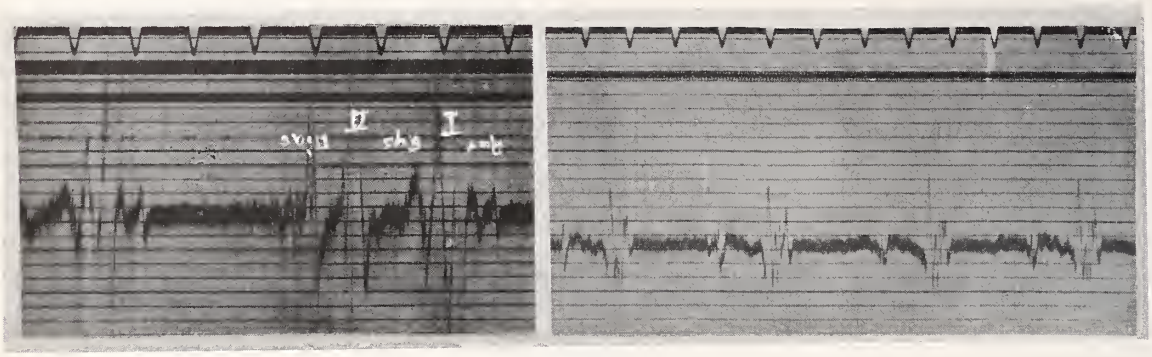


FIGURE 2

HEART SOUNDS taken 1911. Left: Normal sounds, right: Multiple murmurs

the fiber shadow jump all over the camera field.

In the foreground of Figure 1 are the two arc lights focused on the fibers of the two galvanometers. The smaller galvanometer on the left was the model used in 1909 and used for photographing heart sounds.

The larger galvanometer, right, was for taking electrocardiograms and both could be taken simultaneously. The shadows of the two fibers were projected on the camera in the background and a moving film recorded the tracings. In front of the camera slit was a time marker recording one-fifth seconds and the arm of a tambour used to record, by means of a rubber tube attached to the patient, either the carotid, venous or other pulsations at the same time the electrocardiogram was taken. On the left is the table holding the switchboard which controlled all the circuits going to the two galvanometers. On the wall to the right can be seen the telephone switchboard connected to each ward of the hospital used for talking to the nurse while she connected the patient to the wires running to the heart station where the electrocardiogram was taken.

This plan was soon abandoned, because it was found that nurses were more accustomed to transporting patients to the laboratories and the long distance procedure took much more time. However, it was the basis for a reporter writing in the *New York Times* that a Senator in Washington could be hooked up to telephone wires and the Doctor sitting in his laboratory in Baltimore could tell him if there was anything wrong with his heart. In the beginning the patient was connected to the three leads by placing his arms and left leg in large zinc tanks containing salt solution from which wires lead to the switchboard. These tanks, holding several gallons of solution, had to be used for many patients but because of the discomfort caused by the cold solution and the very insanitary aspect of the procedure it was quickly discontinued. Fresh pads soaked in salt water were placed on the extremities and bound down by large German silver plates with wires leading to the instrument.

Phonocardiograms presented some difficulty since this was a period before microphones and sound amplifiers. Engineers of the Bell Telephone Company changed the sensitivity of one of their regular telephone transmitters so that it could pick up very faint sounds, without damaging tone qualities. This was sealed inside a very heavy lead box suspended on three springs from the ceiling. A flexible rubber tubing led from the mouthpiece to a closed stethescope on the chest of the patient. A regular telephone circuit was connected to the transmitter and the string galvanometer acted as the receiver. With this set up very good pictures of heart sounds were obtained as shown in Figure 2.

The electrocardiograms taken then were essentially the same as those taken today. Three leads were taken routinely but in a short time a fourth chest lead was added which corresponded roughly to V3 or V4. Some other leads were used experimentally,



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Lanesta Gel has complete esthetic acceptance and is well tolerated. *Gamble, C. P.: Am. Pract. & Digest. Treat. *11*:852 (Oct.) 1960.

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ELECTROCARDIOGRAPHY

Continued

but they were never included in the standard leads.

Knowledge Still Limited

Knowledge of the electrical phenomena which caused the various waves of the electrocardiogram was not as advanced as it is today. The usual explanation given at that time was as follows: All waves in the upright position represented excitation currents arising toward the base of the heart and all downward waves were those originating toward the apex or the left side of the heart. The P wave was simultaneous with the A wave on the venous pulse and thus represented the auricular contraction. The P-R interval showed the time elapsed while the excitation crossed the auriculoventricular junction. The Q, R, S complex was definitely ventricular, but it preceded the C wave on the venous pulse and therefore, had no visible muscular mechanical equivalent.

This was a puzzle for some time, but it was finally decided that this complex represented a primary contraction of the internal musculature of the ventricles before the actual systole. The circular muscle contraction of the ventricles, consisting of the greatest muscular activity was represented by a plateau where there was no electrical reaction. This was explained by the fact that this contraction was simultaneous and thus, there was no higher potential in one place than another. Therefore, it all balanced out leaving a zero potential and consequently a flat line on the electrocardiogram. The T wave indicated that at the base of the ventricle there was a contraction which was either new or a delayed portion of the circular contraction. The modern concept of electrical responses to muscle contraction has changed this explanation completely.

Waller Sees Dim Future

Waller, writing in 1909, stated that the electrocardiograph was an interesting and important apparatus for experimental work, but he did not see much future for it in clinical medicine. However, it soon began to prove its worth in this latter field and became a simple and accurate method for determinining all the cardiac arrhythmias known at that time.

It quickly cleared up a much disputed point in that MacKenzie had insisted that absolute irregularity was a form of nodal rhythm and many workers disagreed with this conception. The electrocardiogram soon showed that the curves of this irregularity in man were identical with those when auricular fibrillation was produced in animals. This established auricular fibrillation as a clinical entity.

One new condition was introduced by the electrocardiograph. Auriculo-ventricular block was well understood in all its phases, but all attempts to produce experimentally a block between the two ventricles failed. Mechanically the two ventricles contracted simultaneously even though one branch of the bundle had been cut completely. With the electrocardiogram, it was shown that an electrical asynchronism was possible even when the two ventricles contracted together. This was soon demonstrated to occur in patients and established the clinical entity known as partial and complete bundle branch block.

Utilized Downward Progression

As is done today workers in the early days utilized the downward progression of the waves in the three leads to indicate the preponderance of activity in either the left or right ventricle though they were not as well aware that changes in the position of the heart also caused this. The most important use of the electrocardiograph today, namely the use of changes in the contraction patterns to determine the location of infarctions and other conditions, was unknown in the early period. However, when distorted patterns were seen, they were said to indicate myocardial disease. In all the tracings taken in the first few years, I cannot remember one that would have been typical of a coronary occlusion.

About this period Drs. James and Williams at the Presbyterian Hospital, New York, were interested in building their own string galvanometer and electrocardiograph. They were assisted in the mechanical features by Charles F. Hindle who later

Continued



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[1]Hubata, J. A., and Hecht, R. A.: Review of Clinical Use of Hydroxyphenamate (Listica) in 1,759 patients. To be published in Clinical Medicine; [2]Taub, S. J.: Management of Anxiety in Allergic Disorders—New Approach. To be published in Psychosomatics; [3]Cahn, B.: Experience with a New Tranquilizing Agent (Hydroxyphenamate). Ibid; [4]Bergal, M., Beck, C., Davis, O. F., and Sloan, N.: On Use of Hydroxyphenamate in Anxiety Associated with Somatic Disease. To be published; [5]Alexander, L.: Effect of Hydroxyphenamate on Conditional Psychogalvanic Reflex in Man. Supplement to Diseases of the Nervous System, Sept., 1961; [6]Cahn, B.: Effect of Hydroxyphenamate in Treatment of Mild and Moderate Anxiety States. Ibid; [7]Cahn, M. M., and Levy, E. J.: Use of Hydroxyphenamate (Listica) in Dermatological Therapy. Ibid; [8]Eisenberg, B. C.: Amelioration of Allergic Symptoms with a New Tranquilizer Drug (Listica). Ibid; [9]Friedman, A. P.: Pharmacological Approach to Treatment of Headache. Ibid; [10]Greenspan, E. B.: Use of Hydroxyphenamate in Some Forms of Cardiovascular Disease. Ibid; [11]Gouldman, C., Lunde, F., and Davis, J.: Clinical Trial of Hydroxyphenamate in Alcoholic Patients. Ibid; [12]McLaughlin, B. E., Harris, J., and Ryan, E.: Double Blind Study Involving "Listica," Chlordiazepoxide, and "Placebo" as Adjunct to Supportive Psychotherapy in Psychiatric Clinic. Ibid.

***eunoia:** A normal mental state (Stedman's Medical Dictionary).

LISTICA—Hydroxyphenamate, Armour.

ELECTROCARDIOGRAPHY
Continued

marketed the instrument under his name. Alfred Cohn at the Rockefeller Institute in New York was also an early user of the instrument. In the next three or four years, the use of electrocardiographs gradually spread, but because the instruments were expensive, requiring room and special installation, they were largely confined to the main teaching institutions in Philadelphia, New York, Boston, Cleveland, Minneapolis and other places.

Amplification Increases Efficiency

Indiana University in 1914, was one of the first institutions in the midwest to install an instrument. The Cambridge model was used, because it had several improvements over the earlier types. This was set up in two small rooms in the northeast corner of the basement of the original Long Hospital. These rooms were entirely shielded by grounded metal lathe to cut out all extraneous electrical currents. Under these conditions, the instrument was very satisfactory and soon a routine tracing was taken on all cardiac patients in the Hospital. Unfortunately, this did not last long due to interruption by the beginning of the first world war. Only a few of the most important cases received electrocardiograms during that period, but after the war work was resumed, as a routine. There were no new installations during that period because priority in materials and interests were along other lines.

Shortly after the war, there occurred a revolutionary change in the construction of the electrocardiograph which influenced its entire future use. Heretofore, there had been no method of amplifying electrical

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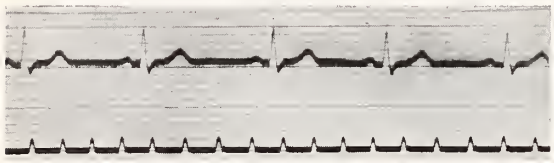


FIGURE 3
THE NORMAL electracardiagraph, taken 1911

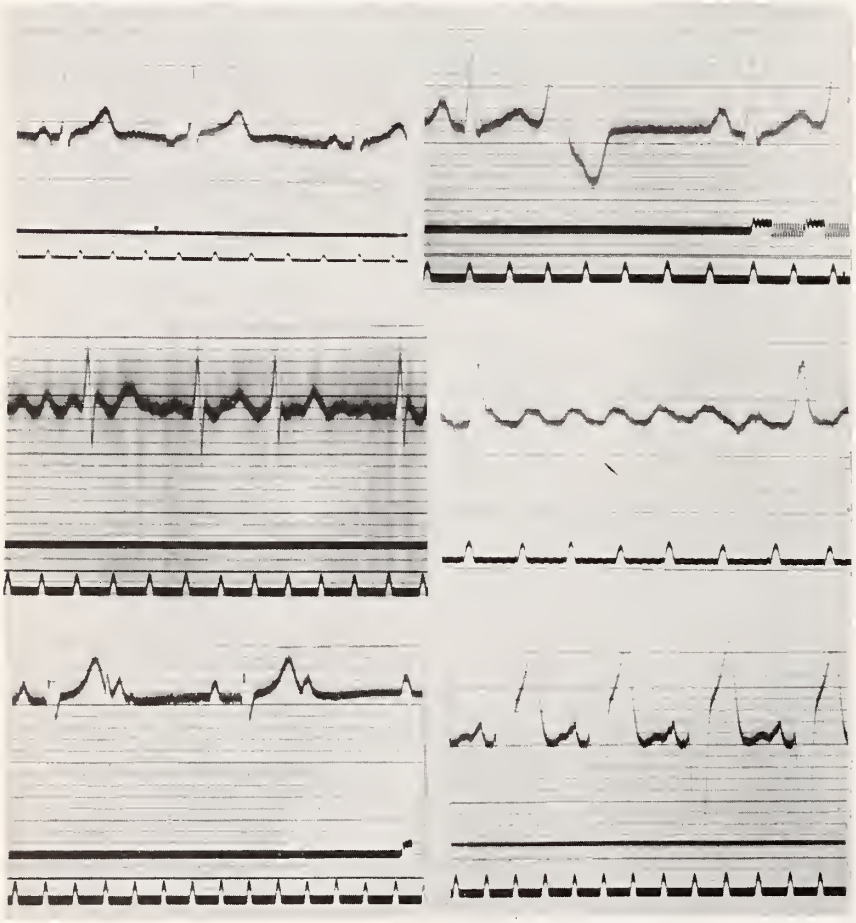


FIGURE 4
CARDIAC ARRYTHMIAS, taken 1911
Upper left: Auricular Extrasystale
Upper right: Ventricular Extrasystale
Middle left: Auricular Fibrillatian
Middle right: Auricular flutter
Lower left: AV Heart black
Lower right: Bundle branch black

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For this, he must depend upon his own powers of observation and the patient's own description of how he feels.

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Each tablet contains Alphadrol (fluprednisolone) 0.75 mg. or 1.5 mg.
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The anti-inflammatory activity of Alphadrol is comparable to the best effects obtained in current practice. Results obtained with Alphadrol have been such as to warrant classifying it among the most efficient steroids now available.

More than twice as potent as prednisolone, Alphadrol exhibits no new or bizarre side effects. Salt retention, edema or hypertension, potassium loss, anorexia, muscle weakness or muscle wasting, excessive appetite, abdominal cramping, or increased abdominal girth have not been a problem.

Indications and effects
The benefits of Alphadrol (anti-inflammatory, antiallergic, anti-rheumatic, antileukemic, antihemolytic) are indicated in acute rheumatic carditis, rheumatoid arthritis, asthma, hay fever and allergic disorders, dermatoses, blood dyscrasias, and ocular inflammatory disease involving the posterior segment.

Precautions and contraindications
Patients on Alphadrol will usually experience dramatic relief without developing such possible steroid side effects as gastrointestinal intolerance, weight gain or weight loss, edema, hypertension, acne or emotional imbalance.

As in all corticotherapy, however, there are certain precautions to be observed. The presence of diabetes, osteoporosis, chronic psychotic reactions, predisposition to thrombophlebitis, hypertension, congestive heart failure, renal insufficiency, or active tuberculosis necessitates careful control in the use of steroids. Like all corticosteroids, Alphadrol is contraindicated in patients with arrested tuberculosis, peptic ulcer, acute psychoses, Cushing's syndrome, herpes simplex keratitis, vaccinia, or varicella.

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ELECTROCARDIOGRAPHY

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pulsations without distortion. Therefore, recording of the heart currents could only be accomplished by a very sensitive detector such as the Einthoven string galvanometer. In the development of radio, the intensifying of sound currents became a very important problem, a great deal of research was devoted to it. Soon it was possible to amplify electric currents many thousand times and still retain their original characteristics. Now an electrocardiograph could be built on an entirely different principle. The original heart currents were amplified several thousand times, and then any kind of detector could be used. At first it was an ordinary galvanometer, but later various types of direct writing devices were used. This simplification allowed its installation in small cabinets which became more and more portable as time went on. It is probable that by the use of transistors and small elements an instrument will be devised soon that can be carried in the hand.

This innovation caused an immediate spread of the use of the electrocardiograph, and it was not long until almost all hospitals were supplied, and many doctors who were interested in heart disease had these instruments in their offices.

Unfortunately, the knowledge of interpretation did not spread as rapidly as the instruments, and there followed a period when there was a large amount of error in the analysis of the tracings. This, however, corrected itself as doctors became more acquainted with the meaning of the waves and realized that electrocardiograms told only one part of the story. It has now became a useful and settled routine procedure and many heart conditions can be determined very accurately.

Conclusion

In reviewing the advance that has taken place in electrocardiography from the simple beginning to the highly technical phase of today, one is amazed at what has been accomplished. The development of multiple leads, unipolar leads, vectocardiography and the extreme mathematical interpretation of minute changes in the curves has led to very intricate diagnostic procedure. Consequently, one can easily make an error in one of two ways. First in interpreting from the electrocardiograph on too slight evidence a clinical conclusion that is not warranted, and second forgetting that the electrocardiogram is not the only evidence toward making a diagnosis.

If I may be allowed to close on a personal note, I would tell of an incident that emphasizes these points. About twenty years ago an intelligent middle-aged man entered the Long Hospital and asked that I see him that night as he was not sure he would be alive in the morning. His home doctor had taken an electrocardiogram showing bundle branch block and had told him he had a serious heart lesion and might not live long. On seeing him and learning he had had no symptoms even after another similar electrocardiogram the examination showed him far from his death bed. Reassurance made him again an active business man and so he has remained to this date. Therefore, as time progresses in the future, we will probably learn that we are now placing too much emphasis on certain features and too little on others, in the electrocardiograms. ◄

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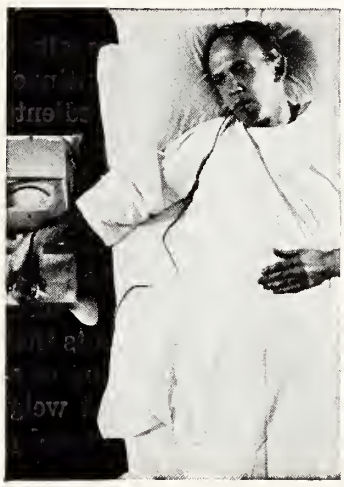
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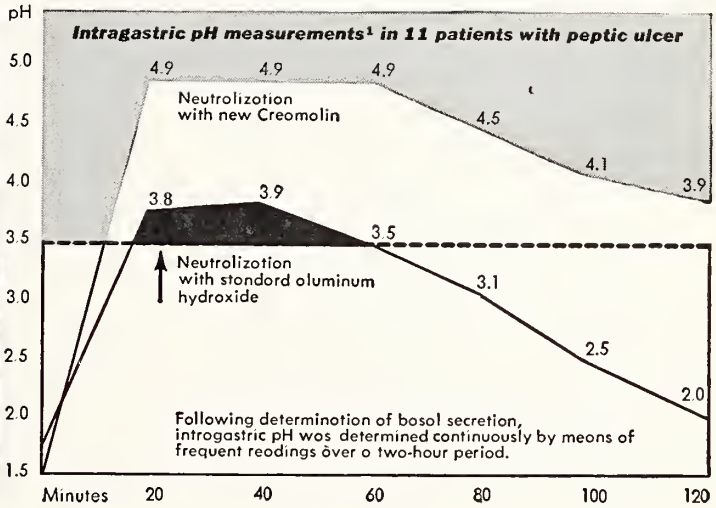
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in vivo
neutralizes
40 to 50 per cent
faster—
twice as long at
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Dosage: Gastric hyperacidity—from 2 to 4 tablets as needed.
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How Supplied: Creamalin Tablets, bottles of 50, 100, 200 and 1000.
Also available: New Creamalin Liquid (1 teaspoon=1 tablet),
bottles of 8 and 16 fl. oz.

References: 1. Schwartz, I. R.: *Current Therap. Res.* 3:29, Feb., 1961. 2. Beekman, S. M.: *J. Am. Pharm. A.* (Scient. Ed.) 49:191, April, 1960. 3. Hinkel, E. T., Jr.; Fisher, M. P., and Tainter, M. L.: *J. Am. Pharm. A.* (Scient. Ed.) 48:381, July, 1959. 4. Data in the files of the Department of Medical Research, Winthrop Laboratories. 5. Hinkel, E. T., Jr. ; Fisher, M. P., and Tainter, M. L.: *J. Am. Pharm. A.* (Scient. Ed.) 48:384, July, 1959.

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Quality Control in the Drug Industry

*Detroit, Michigan**
H. J. LOYND

FOR THE FIRST TIME in medicine's long history, the physician has at his disposal an ample number of remedies that are truly effective in preventing and treating many hitherto unyielding diseases. They are powerful, direct-acting agents that, more than ever before, need to be used precisely and manufactured precisely. If, as Sir Julian Huxley has remarked, modern medicine has given us "death control," then, surely, quality control of its medicaments has helped to make this happy achievement possible.

As defined in a statement of general principles, recently adopted by the Pharmaceutical Manufacturers Association, "Control of quality in the formulation, manufacture and distribution of pharmaceutical, biological, and other medicinal products is the organized effort employed by a company to provide and maintain in the final product the desired features, properties, and characteristics of identity, purity, uniformity, potency, and stability within established levels so that all merchandise shall meet professional requirements, legal standards, and also such additional standards as the management of a firm may adopt."

Control Procedures Are Basic

The procedures necessary to bring about these results include all appropriate tests and assays of the ingredients to be used and on the final product, regardless of whether it is a drug as "old" as aspirin or as "new" as oral poliomyelitis vaccine. Control procedures often begin with the examination of samples of the ingredients before purchase by lot is made (usually where botanicals are to be used), continue with the testing of the actual ingredients and final product, and end with the application of the finishing or control number to the package label. These procedures are the means for obtaining facts on which to base sound judgment regarding the character, quality, and uniformity of a medicinal preparation and of the statements that may be made concerning it in labeling or advertising. They are the scales that weigh the evidence of the strength, quality and purity of each lot of the product.

Quality control must be concerned with every factor that can affect the character and quality of the finished product, whether single ingredient or compound, including purchasing, manufacturing, packaging, storage, and labeling. Control procedures are also applied to such items as glass containers, closures for bottles and liners in caps, filters, pyrogenic substances in parenterals, even to the glue used for labels. Labels themselves, in a good quality control system, are kept under strict control so that no mixups or thefts will occur, with possibly serious consequences. They are counted, secured at night, and brought out and placed on the finishing line, where they are counted again.

It is obvious that an adequate control laboratory must have a wide variety of chemical and physical apparatus for conducting the necessary tests for determining the identity, uniformity, strength, and purity of each lot of each product. It is equally obvious that it must be staffed with trained scientists capable of employing the chemical, physical, bacteriological, pharmacological and microbiological procedures re-

* President, Parke, Davis & Company, and a member of the board of directors of the Pharmaceutical Manufacturers Association.

quired by the particular product or process. But the group involved in quality control work includes more than just those actually making the goods. There are inspectors, as well as scientists, who make their examinations at all stages of the process, and there are others who check on the material in the warehouse to see that all stock is in satisfactory condition (Figure 1).

Records Serve as Support

Supporting the entire control process, are the records that are kept of all manufacturing and packaging operations, weighings, measurings, inspections, tests and assays, for each production lot, with the signature of the person responsible for each of the steps in those procedures. These records are often retained permanently by the laboratory. In addition to their value in helping to assure the production of a preparation of uniform quality, they provide, through the use of batch, lot, or control numbers, a system of identification whereby recalls can be made if necessary. They also supply the information required by law for the new drug application, under the Federal Food, Drug and Cosmetic Act, namely, "a full list of the articles used as components of such drug; a full statement of the composition of such drug; a full description of the methods used in, and the facilities and controls used for the manufacture, processing, and packing of such drug; specimens of the labeling proposed to be used for such drug."

Intricate, Difficult—Always Precise

This general summary of quality control in the drug industry is only a brief outline of an intricate and difficult, but always precise, process. Details will, of course, vary widely from plant to plant, depending on the size of the operation, the number of employees, extent of production, and the variety of substances made. But no matter what pattern the control procedures may take in any given situation, they must be able to guarantee the quality of the final product. Like all other aspects of drug manufacturing, quality control procedures are under continuous critical review looking toward all possible improvements in technics and equipment. New and better

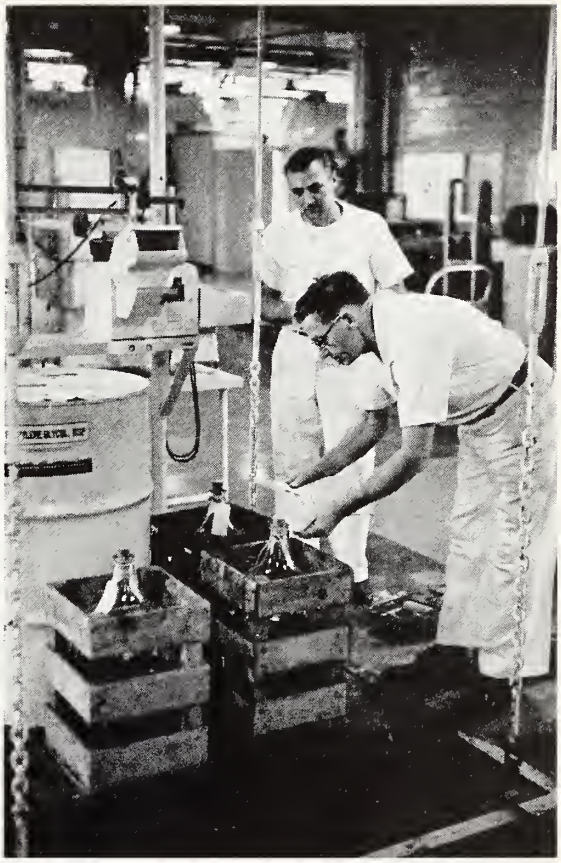


FIGURE 1

A QUALITY CONTROL CHECKER (right) verifies the raw materials which have been delivered from the storeroom to the manufacturing department. Each operation in the production of pharmaceuticals is checked and double-checked by quality control experts.

tests and methods of assay are constantly being sought, while old ones are constantly undergoing refinement.

The quality control laboratory, when properly conducted, is the area in which the drug manufacturer's integrity is measured by his product. It is his means of assuring the physician of the character, quality and uniformity of the medicine he prescribes, down to the single dose: A 5-grain tablet must be not only of uniform stability, size, weight, quality, and purity, it must contain 5 grains of medicine, no more and no less, within close limits (Figure 2).

There is more to quality control, however, than the routine application of scientific procedures. Medicinals of high quality are not automatically produced. There must be a "high quality" consciousness prevalent throughout the plant; workers must be kept quality conscious (Figure 3). The layout



FIGURE 2

HERE A QUALITY control speciolist takes o somple of o finished liquid product for testing ond assoying. A constont check is maintained throughout the manufocturing process to make certain the product is up to quolity standards.

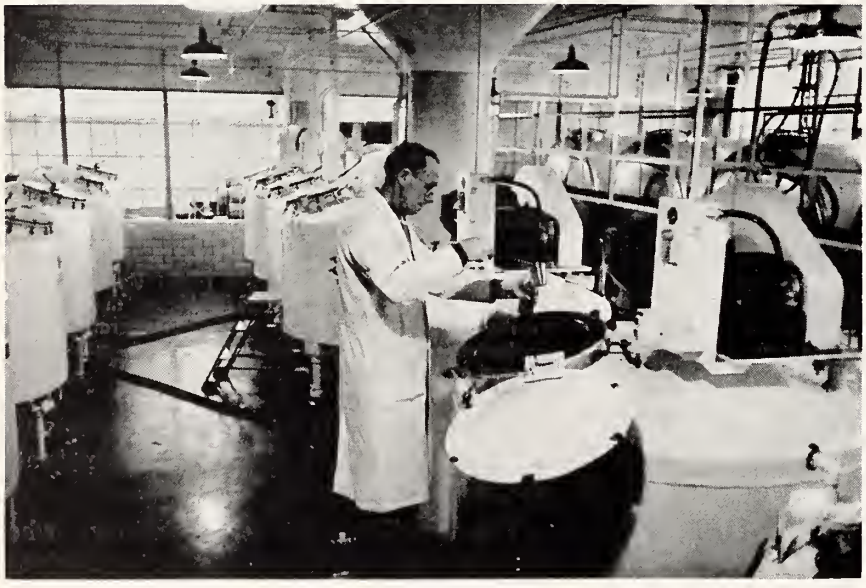


FIGURE 3

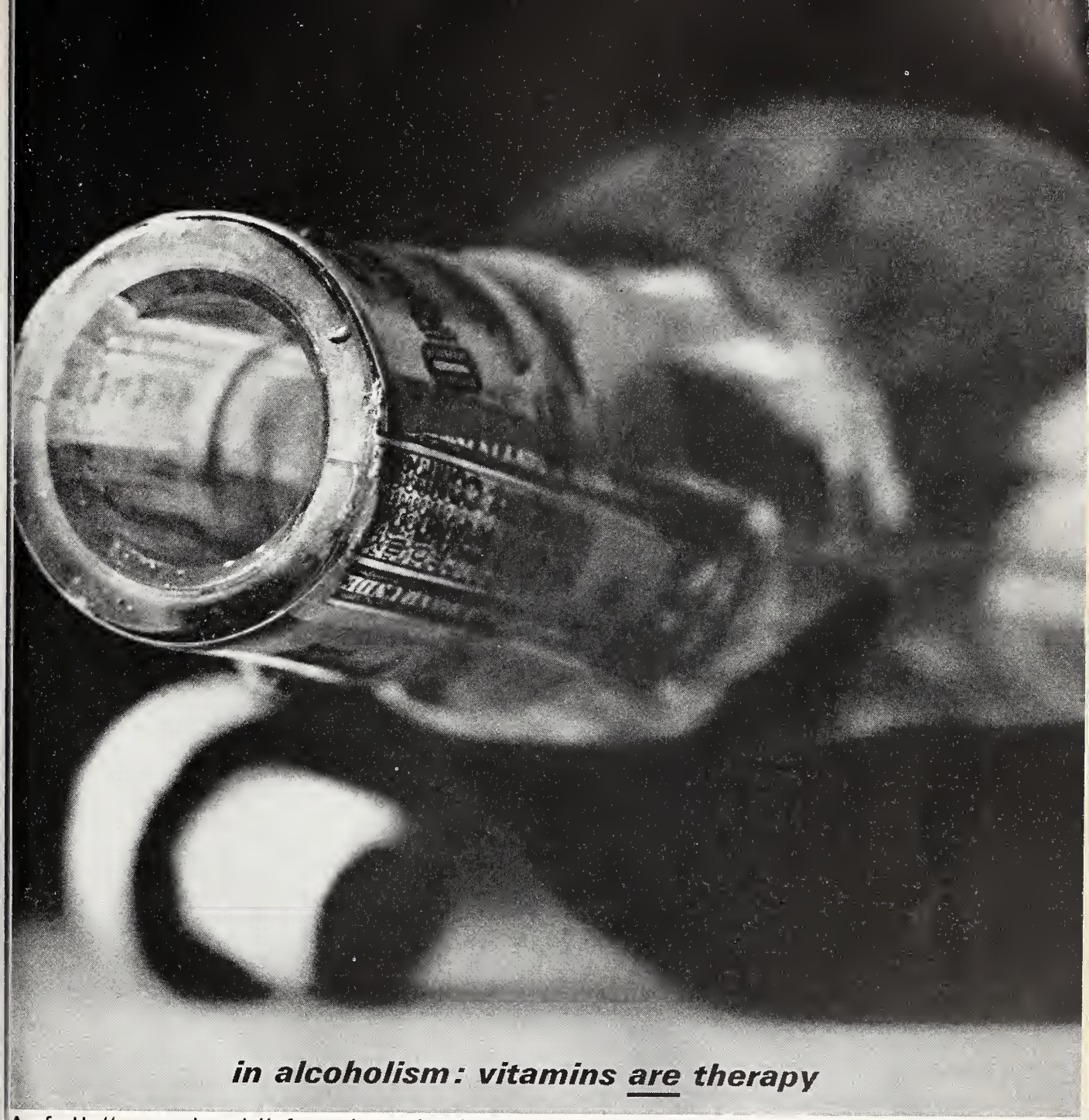
AT THE END of o finishing line o quality control checker inspects the lobels and exterior of these bottles of o fluid product. Not only hove the contents of the bottles been checked corefully, but the exterior appearonce hos been opproved by the quolity control representative.

of the plant, too, is important in the production of a product of high quality. It should, for example, be so arranged as to avoid the danger of cross-contamination of materials, and permit the appropriate isolation of batches in process.

Reflects Integrity

Quality control is an expensive and time-consuming process, but the responsible drug manufacturer supports it generously because he knows that its proper functioning is a reflection of his integrity. At the same time it affords a golden opportunity for the sharp operator to cut corners, since a product of inferior quality can bear the outward appearance of a quality product. The counterfeiter, of course, skips the entire procedure.

The conscientious drug manufacturer is at all times aware of his responsibilities to the doctor and to the patient. The physician's confidence in his products and, in turn, the patient's confidence in his doctor are of the same order and must not be betrayed. Adequate quality control is the best assurance that these confidences will be maintained. ◄



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A full "comeback" for the alcoholic is partly dependent on nutritional balance...aided by therapeutic allowances of B and C vitamins. Typically, the alcoholic patient is seriously undernourished...from long-standing dietary inadequacy, from depletion of basic reserves of water-soluble vitamins. Supplied in decorative "reminder" jars of 30 and 100.

Each capsule contains:	
Vitamin B_1 (Thiamine Mononitrate)	10 mg.
Vitamin B_2 (Riboflavin)	10 mg.
Niacinamide	100 mg.
Vitamin C (Ascorbic Acid)	300 mg.
Vitamin B_6 (Pyridoxine HCl)	2 mg.
Vitamin B_{12} Crystalline	4 mcgm.
Calcium Pantothenate	20 mg.

Recommended intake: Adults, 1 capsule daily, or as directed by physician, for the treatment of vitamin deficiencies.

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Medicine At Law

DECISIONS AND OPINIONS

Highlights of recent court actions pertaining to health and medicine from *The Citation* prepared by the Law Division of AMA.

Physician Liable for Suicide in County Hospital.—A physician, who was the Superintendent of a County Hospital, was held personally liable in the amount of $10,000 for the suicide-death of a hospitalized patient. The Washington Supreme Court affirmed this decision. Since the Superintendent was required by statute to perform all of the administrative services necessary for the admission and proper care of patients, he was legally responsible for negligence of the hospital staff, even though he did not personally direct the care of the patient, said the court.

The patient was admitted as an "attempted suicide" case. She was left alone in a locked room which could be observed only through a peep hole. She was left under the care of a nurse who had at least twelve other patients under her care. During the absence of the nurse, the patient strangled herself with plastic tubing which was used to give her intravenous feeding.

The court said that the hospital had a duty to use reasonable care to safeguard the patient from self-inflicted injury or death, since she was admitted as a paying patient and since the hospital had been warned of her suicidal tendencies.

Kent v. Whitaker, 364 P. 2d 556 (Wash., Aug. 31, 1961).

Damages Awarded for Incompatible-Blood Injury.—Damages were recovered, under the Federal Tort Claims Act, by a serviceman and his wife for injuries suffered by the wife because of the transfusion of incompatible blood. The wife recovered $40,000 for pain, suffering, mental anguish, loss of physical ability to perform household tasks, permanent injury to her kidneys, and permanent rheumatoid arthritis. The serviceman recovered $10,000 for loss of the services and companionship of his wife.

The wife was given a transfusion 1,000 cc. of blood in connection with a hysterectomy performed at an Army hospital. Her blood had previously been typed as Group O positive. In typing her blood for the transfusion, a hospital technician determined that it was Group B positive. She was transfused with Group B positive blood and developed a hemolitic reaction. Her blood was immediately retyped and was determined to be Group O positive.

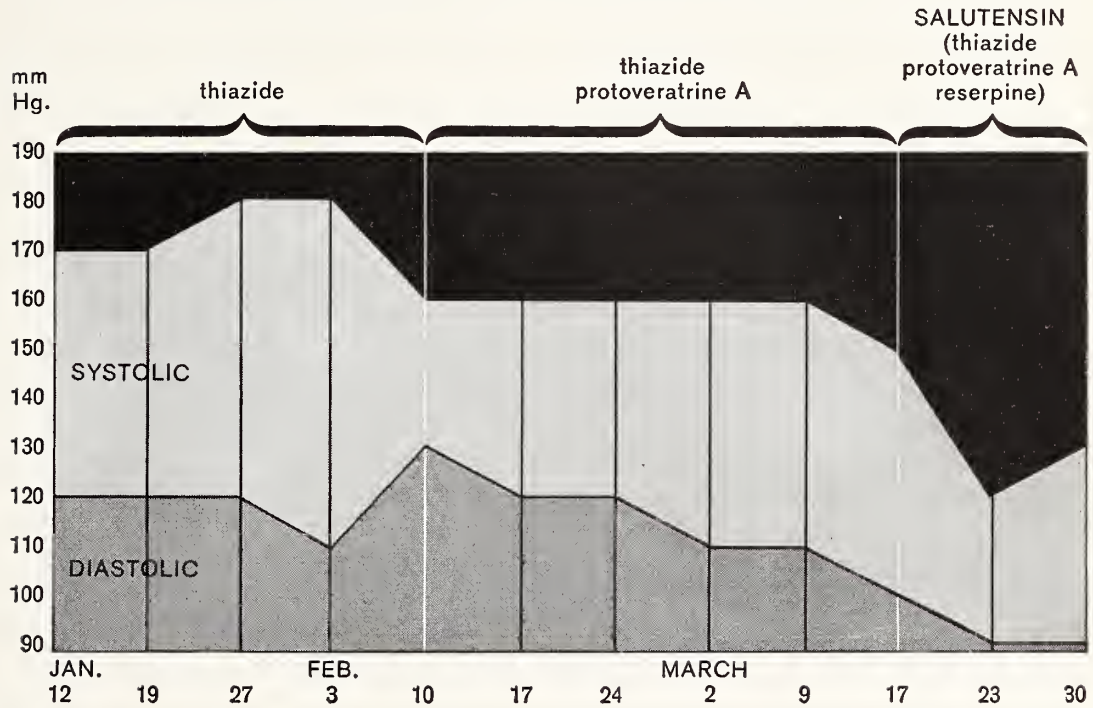
Without deciding whether the doctrine of res ipsa loquitur (under which negligence can be presumed from the occurrence of an injury in certain circumstances) was applicable in this case, the court held that there was sufficient evidence to establish negligence by the hospital personnel in typing the wife's blood and that this negligence was the proximate cause of her injury.

Under the law of Oklahoma, where the hospital was located, the serviceman was not entitled to recover for his mental anguish. That element of damages is not allowed in Oklahoma unless the wife dies. The court fixed the attorneys' fees at 20 percent of the total amount recovered, to be paid out of, but not in addition to the amount of the judgment.

Redding v. U. S., 196 F. Supp. 871 (D. C., W. D. Ark., Aug. 8, 1961). ◄

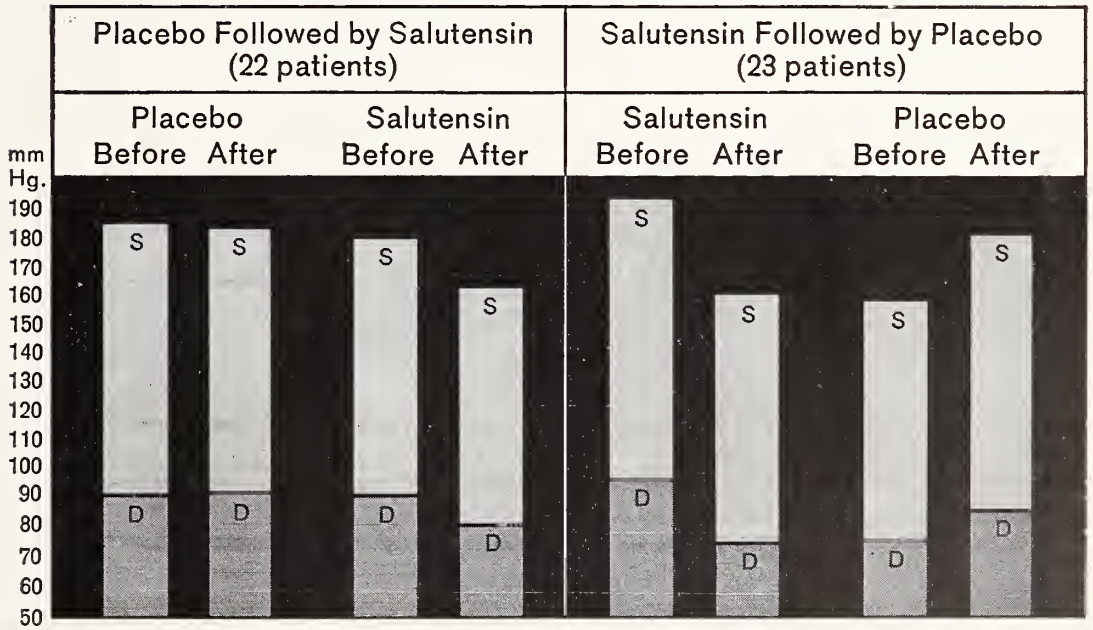
11 WEEKS TO LOWER BLOOD PRESSURE TO DESIRED LEVELS BY SERIAL ADDITION OF THE INGREDIENTS IN SALUTENSIN IN A TEST CASE

(Adapted from Spiotta, E. J.: Report to Department of Clinical Investigation, Bristol Laboratories)



3½ WEEKS TO LOWER BLOOD PRESSURE TO DESIRED LEVELS USING SALUTENSIN FROM THE START OF THERAPY IN A "DOUBLE BLIND" CROSSOVER STUDY

Mean Blood Pressures–Systolic (S) and Diastolic (D)



In this "double blind" crossover study of 45 patients, the mean systolic and diastolic blood pressures were essentially unchanged or rose during placebo administration, and decreased markedly during the 25 days of Salutensin therapy. (Smith, C. W.: Report to Department of Clinical Investigation, Bristol Laboratories.)

BRISTOL LABORATORIES / Div. of Bristol-Myers Co., Syracuse, N.Y.

ABSTRACTS

BOOK REVIEWS

CLINICAL OBSTETRICS AND GYNECOLOGY, December, 1960

Thaddeus L. Montgomery, M.D., Robert B. Greenblatt, M.D., Paul B. Hoeber, Inc., 3110 Elm Ave., Baltimore, Md. Subscription: $18.00 per year.

This review covers one number only (December, 1960) of a quarterly publication of *Clinical Obstetrics and Gynecology*. The symposium on "Fetal Physiology and Distress" is edited by Thaddeus L. Montgomery, Professor and Chairman of the Department of Obstetrics and Gynecology, Jefferson Medical College, Philadelphia. There are 11 contributors to each section of the book; all have made recognized clinical observations and have done creditable research work in some particular field.

Included in the symposium on fetal physiology and distress, are the causes of fetal distress, abnormal fetal physiology, the management of such complications. Also included are such practical directions as the routine management of the cord and resuscitation. Other pertinent subjects include: placental circulation, anemia of newborn and effects of radiation on the fetus.

The section on obstetrical and gynecological endocrinology edited by Robert B. Greenblatt covers an extensive field in which great strides have been made, but still our knowledge of endocrine physiology is extremely incomplete. Doctor Greenblatt is Professor of Gynecological Endocrinology, Medical College of Georgia, and is an outstanding leader in this field. From this symposium any physician who deals with women, not only obstetricians and gynecologists, can obtain much useful information. Much of the basic physiology and the chemistry of hormones is presented along with the clinical use of the various endocrine preparations. Such practical subjects as the proper use of oxytocin in obstetrics and the use and misuse of thyroid substances are clearly and authoritatively presented. This symposium is an excellent up-to-date review of the subject, but in some instances the individual opinions of the authors are not concurred in by all workers in these fields. In the discussion of estrogens the author recommends only Premarin in estrogen therapy; most patients would be more apt to stay on cheaper estrogens.

Although this review covers but one quarterly number of a regular publication it gives a general idea of the content of the material which is presented quarterly by the publishers. It is excellent condensation—although not too brief—of the progress of our knowledge of obstetrics and gynecology. The selection of recognized and authoritative contributors who are all capable workers in various fields is excellent. It is doubtful if one could get more authoritative and up-to-date subject matter on this branch of medicine from any other source. This material is not reviews or abstracts of previously published articles.

David A. Bickel, M.D.
South Bend

SYMPTOM DIAGNOSIS

Wallace M. Yater, M.D., and Wm. F. Oliver, M.D., Fifth Edition, Appleton-Century-Crofts, Inc., New York. Price $15.00; Pages 977—April 1961.

As stated in the Preface this book has a threefold purpose:

1. To aid the busy physician in the diagnosis of his case by allowing him to quickly reduce the number of possibilities to a relatively small list;
2. To prevent the oversight of important considerations;
3. To make medical men more observant of the characteristics of the symptoms of disease.

This book is truly a great reference library in itself. Its contents covers regional symptoms and general symptoms and an appendix covering syndromes and diseases, symptoms and signs associated with men's names.

Each symptom is dealt with on the basis of all conditions that might produce it. Each condition is covered by the cardinal characteristics and a short reference to the chief signs.

Differential diagnostic tables throughout the book make for a ready reference in nearly any field. Enumeration of the less common causes of a symptom really makes a complete coverage of all of the diagnostic possibilities.

The reviewer is amazed at the completeness of its coverage and feels this volume is a must in the daily practice of a busy physician.

W. L. Portteus, M.D.
Franklin

HANDBOOK OF PEDIATRICS

Fourth Edition, Drs. Henry K. Silver, C. Henry Kempe, Henry B. Bruyn. Lange Medical Publications, Los Altos, Calif. Pages 552. Price $3.50.

While not a pediatric text it gives a well-rounded, ready review of pediatric problems for this busy practitioner. Its size makes for easy carrying in pocket or car.

Chapters on Medical Emergencies and Poisons and Toxins are extremely valuable for quick references when the physician is making calls in the home.

The book is interspersed with many tables useful in differential diagnosis. Laboratory and immunization procedures and discussion of the peculiarities of drug dosage in pediatrics is well covered.

I'm sure knowledge of the contents would make any physician a well rounded Pediatrician.

W. L. Portteus, M.D.
Franklin

THE CARDIAC ARRHYTHMIAS

Brendan Phibbs, M.D., C. V. Mosby Co., St. Louis, Mo., 1961. 128 pages. $7.50.

There are encyclopedias, monographs—and McGuffey readers; there are such sets as Luisada's *Cardiology*, Katz & Pick's *The Arrhythmias*—and the present manuel.

The author's aim is stated to be, "an unsophisticated approach . . . directed to the general practitioners . . ."

The NON cardiologist, the flunking junior medical student, the Kaspar Milquetoast M.D. frightened by the incomprehensible wigglings of PQRST —all these people get a clear, painstakingly spelled out, explanation of what it is all about. The author avoids all semblance of confusion by presenting the one (his) treatment for each given condition; controversy is deftly and firmly sidestepped.

The type is large, the illustrations, line drawings and illustrative E.K.G.'s are very clear, the paper is of the finest gloss and the binding is excellent. The price seems a trifle excessive for the quality being offered.

For the audience at which it is aimed, this little primer is a bull's eye: right on target.

Arnold Lieberman, M.D.
New York, N. Y.

CLINICAL MEDICINE AND THE PSYCHOTIC PATIENT

Otto F. Ehrentheil, M.D. and Walter E. Marchand, M.D. 1960. Charles C. Thomas, Springfield, Ill. 378 pages. Illustrated. $10.75.

There is a pleasant inscription from Dr. Marchand to the present writer in the copy I hold in front of me; there are several references to the reviewer's works inside the covers of this little monograph. Ordinarily, this should bar one from undertaking a critical review as most editors feel that personal friendship is a hindrance to a dispassionate analysis of an opus.

However, in the more than a year that I have had this volume, I have found myself going time and again to browse through its pages both for the wealth of information contained and also for the sheer pleasure of savoring its delightful style.

In this volume the authors come to grips with the patient whom no one desires particularly and yet whom *every* practitioner of medicine encounters almost every day and who has to be handled: intelligently, we hope. The psychotic patient rarely complains even when asked; pain is felt but improperly interpreted on the conscious cortical level; psychosomatic ailments are rarely seen but do occur. The exhaustion syndrome is most serious, indeed; allergic and autoimmune diseases are significantly fewer in the schizophrenic as compared



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with the normal individual—just a host of engaging points are made.

The authors are didactic without being dogmatic. They illustrate perfectly what TLC, tender loving care, can accomplish. Also, how good physicians can produce writings of lasting value even when they are in dreary, grim, most unpromising surroundings. It is monographs like this one that eternally renew my faith in the essential basic decency and good sense of the medical profession which is a segment of and minsters to the human race.

Arnold Lieberman, M.D.
New York, N. Y.

RELIEF OF SYMPTOMS

Walter Modell. C. V. Mosby Co., 2d ed., 1961. $11.50. 375 pages; 31 chapters; 24 tables.

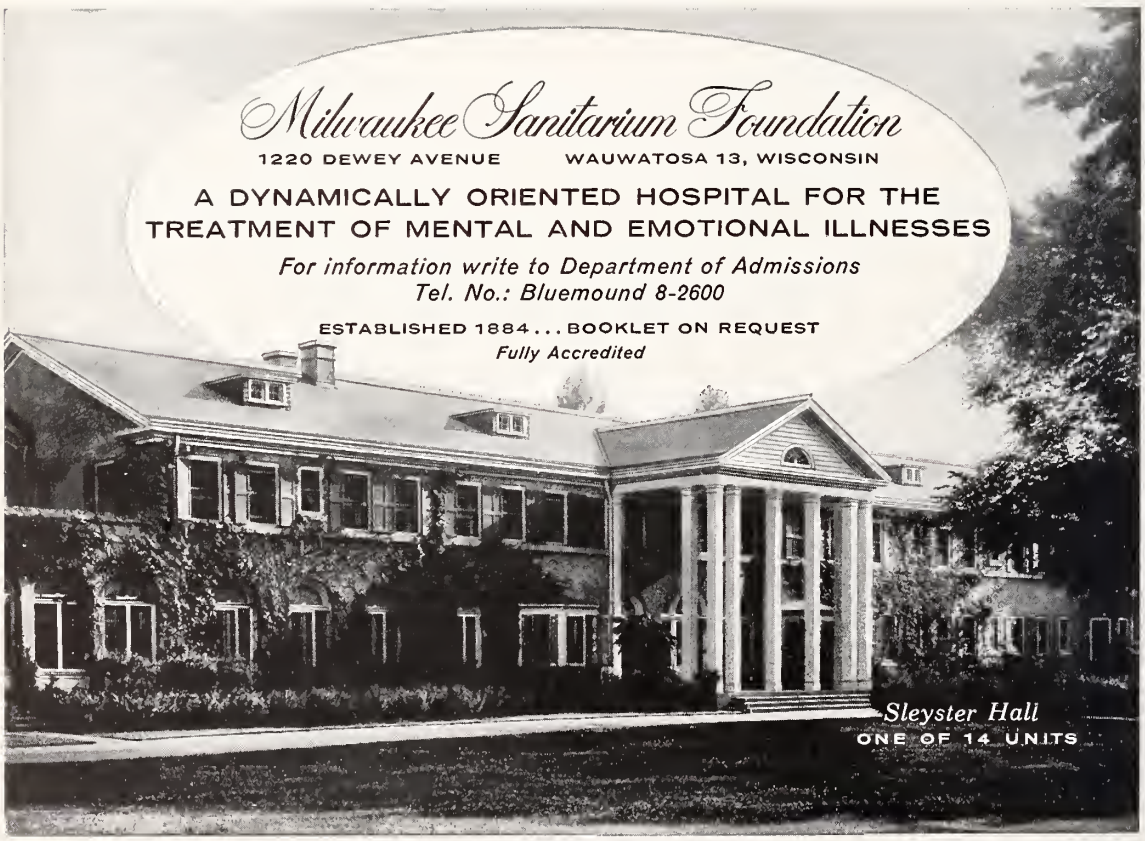
It was a pleasure reviewing this author's *Drugs of Choice;* I am not disappointed by my reading of this latest work on relief of symptoms. The author is so old-fashioned that he is ultra-modernistic: very carefully, he states that he is eschewing a discussion of the CURE of a condition—all he wants to do is to take up the most prominent of the SYMPTOMS that send a patient to the doctor in the first place. It is his stated purpose to discuss the *relief* or palliation of symptoms while awaiting a cure.

After discussing the nature and functions of the relief to be obtained with drugs and other means, Dr. Modell plunges, chapter by chapter, into the analysis of just what can be done for such diverse symptoms as pain, fever, headache, cough, etc.

He points out that typhoid fever is treated specifically by chloromycetin but that relief of symptoms is obtained by use of demulcents, opiates, etc. Peptic ulcer can be treated by attacking the mechanism of production by the use of vagus paralyzing drugs—and also by relieving the pain itself with morphine and other pain killers. Some 27 symptoms have been chosen by the author for this type of analysis. There is a separate section outlining the over uncritical use of cortisone compounds; it is worth reading several times over. Also, I liked the decisive way in which Dr. Modell deflates the claims of many drug firms as to the wondrous specificity of their particular pet items.

The two-column format is easy on the eye; the paper is of good quality and the binding is adequate. The numerous tables giving generic and proprietary names is a considerable practical aid. I failed to see any misprints and I liked the idea of references to further reading appended to the end of each chapter.

This is not a world-shaking monograph; it is a very useful volume geared to the busy practitioner who needs quickly a rapid answer to a practical problem: What? How much? How long? Dangers?



Such a physician will find this volume one of his most useful investments.

Arnold Lieberman, M.D.
New York, N. Y.

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Surgical Technic, Two Weeks, April 2, June 4
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Advances in Surgery, One Week, March 19
Plastic Surgery of Head and Neck, One Week, April 9
Basic Principles in General Surgery, Two Weeks, April 23
General Surgery, One Week, May 7, Two Weeks, April 2
Gynecology, Office & Operative, Two Weeks, April 9
Vaginal Approach to Pelvic Surgery, One Week, March 26
Obstetrics, General & Surgical, Two Weeks, March 12
Pain Relief in Childbirth, 3 Days, March 7
Proctoscopy & Sigmoidoscopy, One Week, March 26
Treatment of Varicose Veins, One Week, March 26
Basic Internal Medicine, Two Weeks, March 26
General Practice Review, One Week, May 21
Basic Electrocardiography, One Week, March 19
Gallbladder Surgery, 3 Days, March 12
Surgery of Hernia, 3 Days, March 15
Urology, Twa Weeks, April 3
Surgery of the Hand, One Week, April 16

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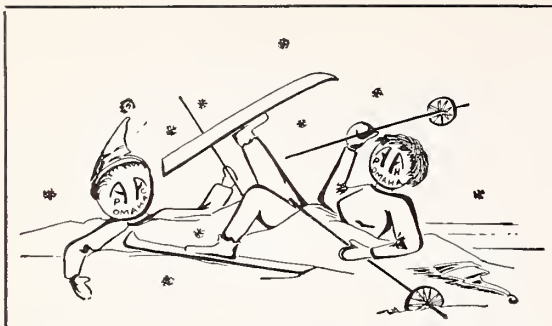
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ABSTRACTS, REVIEWS

Continued

hours is adequate and a hospital setting is not required.

Weizel, H. A. E., Dana, D.: New Intravenous Tetracycline Derivative, *Canadian Med. Assn. J.* 85:1091 Nov. 11, 1961.

ASTHMA IN PATIENTS WHOSE SYMPTOMS BEGAN BEFORE SIX YEARS OF AGE

The histories of 58 children whose asthmatic symptoms began before 6 years of age, indicated that there had been a high incidence of bacterial infections, especially of severe upper respiratory infections. Other factors included inhalants and foods, but bacterial allergy seemed to play the largest role. Staphylococcus may have played a large part in the etiology of infective asthma, since marked relief of symptoms accompanied their disappearance from the cultures of 17 patients after autogenous vaccine treatment. Skin tests were compared after several years of treatment. A brief discussion of associated allergies was also presented. The proper treatment of such a patient requires a thorough study of the child with appropriate allergic measures and re-evaluation at regular intervals.

Frazier, C. A.: Asthma in Patients Whose Symptoms Began Before Six Years of Age. *Annals of Allergy* 19:1146 Oct., 1961. ◄



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Disease	Dec. 1961	Nov. 1961	Oct. 1961	Dec. 1960	Dec. 1959
Animal Bites	330	389	497	289	246
Chickenpox	460	164	56	507	592
Conjunctivitis	63	48	51	87	68
Diphtheria	0	0	1	1	1
Dysentery, Unspecified	41	32	71	16	40
Impetigo	136	153	258	162	97
Infectious Hepatitis	180	111	100	162	38
Infectious Mononucleosis	17	10	25	23	20
Influenza	1135	544	640	1065	1114
Measles (Rubeloa-Rubella)	219	141	112	335	280
Meningitis, Meningococcal	2	2	1	3	4
Meningitis, Other	21	4	9	12	49
Mumps	217	114	46	364	178
Pertussis	17	3	7	13	95
Pneumonia	198	142	138	213	259
Poliomyelitis	3	4	6	13	4
Streptococcal Infections	423	295	298	569	492
Tinea Capitis	20	29	57	31	16
Tuberculosis (Active)	125	63	115	Not Available	Not Available



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Marciano T. Olivo, 19 E. Alice Ave., Apt. 5, Phoenix, Ariz.—*Anesthesiology*

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James T. Adams, 40 Delafield St., Fort Leonard Wood, Mo.—*General Surgery*

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A. Pellerano, 1406 Sunnyside Ave., Hopewell, Va. —*General Surgery*

Henry K. Freedman, 526 East 82nd St., New York, N. Y.—*Urology*

Elias S. Adamopoulos, 24 A Oak Grove Drive, Baltimore, Md.—*Ear, Nose and Throat*

William C. Rogers, 1020 S. 15th Ave., Maywood, Ill. —*Urology*

Edward O. Nonweiler, 1914 Brunson, Houston, Tex. —*Urology*

Locations

Gibson County—OWENSVILLE—population 1,100 with a large surrounding territory, mainly farming community. Located 13 miles from Princeton where a new 80-bed hospital is to be opened the first of 1962. No physician in the community. Contact Marion E. Warpenburg, D.D.S., Owensville, for further details. Owensville is 25 miles from Evansville where three hospitals are available.

Morgan County — MARTINSVILLE — population 6,000. Located 30 miles southwest of Indianapolis. Hospital facilities available. Dr. Robert Brubeck wants someone to take over his general practice. For further information contact Doctor Brubeck at 215 East Washington Street, Martinsville.

Spencer County—LAMAR—located close to Dale, Indiana. Farming community. Community can use the services of another physician as one physician is limiting his practice to office work. Hospital located at Huntingburg which is 8 miles away. Contact Albert J. Wedeking, President, Dale State Bank, Dale.



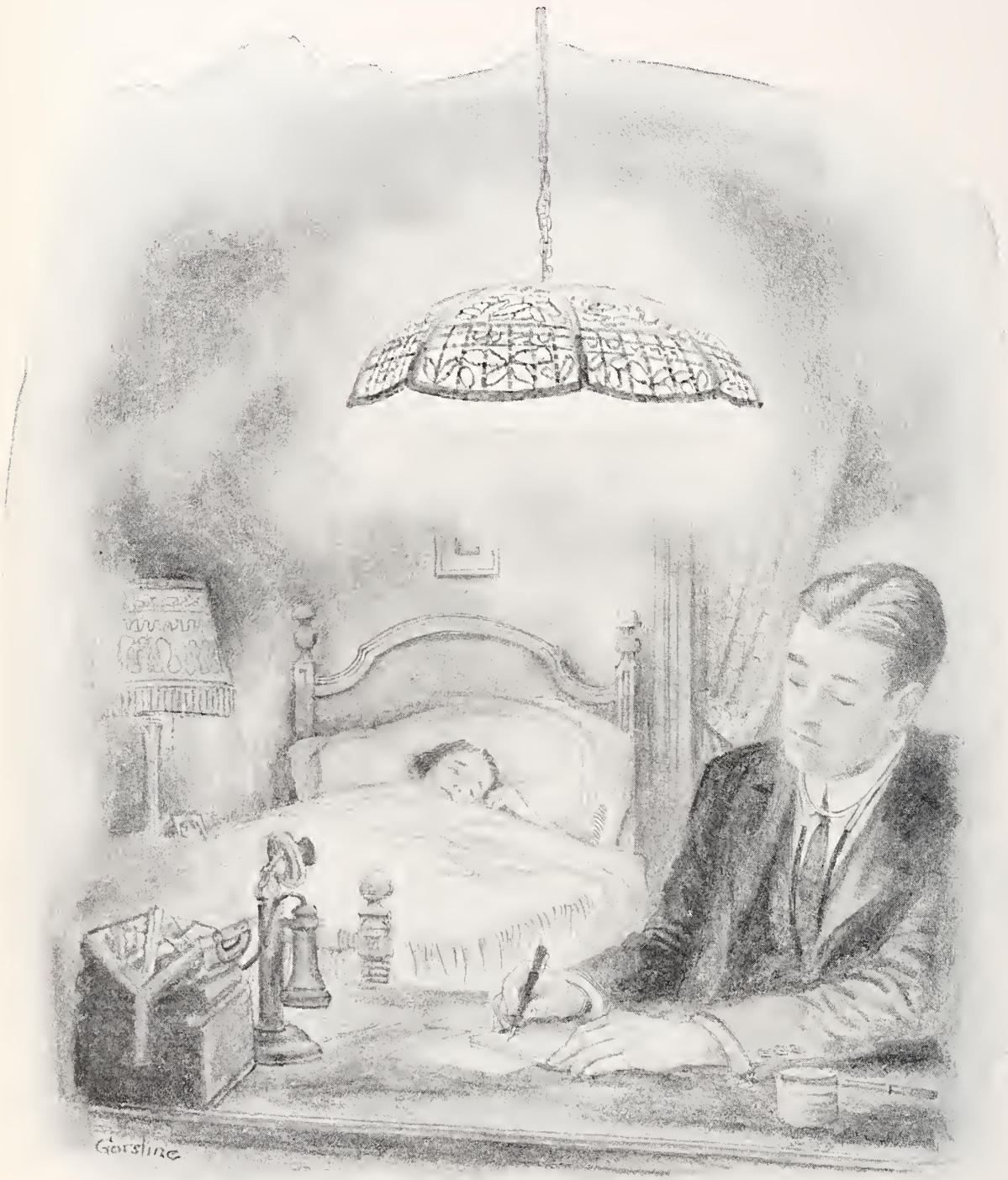
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Community Service Approach to Health Care Financing

(One of a series prepared by Blue Cross-Blue Shield)

Blue Cross-Blue Shield believes that health care financing organized on a community service basis is in the best interests of members, doctors, hospitals and the general public.

Any real solution to the problem must be based on these two principles: (1) the best possible protection should be made available to all persons, and (2) money paid in for health care should be paid out for health care.

"All persons" includes those of medium and low income. Protection should be available to them when working, after termination of employment, after retirement and when they are sick. The protection should be continuous, and it should not be canceled or waivered because of utilization, condition of health or change in employment status.

Blue Cross-Blue Shield accepts the community responsibility of attempting to enroll all segments of the population on such a basis. Varied programs have been devised to meet the needs of employed workers, pensioners, self-employed, college students, over-age, and retired individuals. During five state-wide open enrollment campaigns everyone in Indiana has been given the opportunity to obtain Blue Cross-Blue Shield protection.

Today nearly one-third of all Hoosiers are enrolled in Blue Cross-Blue Shield, including almost one-third of the special problem group of persons 65 and over.

The Plans were organized to solve social as well as economic problems. The goal is service rather than profit; the concern is protection rather than price. In pursuit of such objectives, Blue Cross-Blue Shield has successfully bypassed experience rating and other underwriting principles insurance companies feel are necessary to successful operation, and has never canceled membership because of use, health or change in job status.

What does this type of not-for-profit operation mean to members, providers of service, and the general public? In 1960, Blue Cross-Blue Shield paid out 92.5% of all income for members' benefits, held operating costs to a low 6.3% of income and kept the balance of income in reserve against future contingencies of high utilization and increasing costs. Not-for-profit administration and economical operation on a volume basis make it possible for Blue Cross-Blue Shield to provide the greatest benefits at the lowest cost.

The growth of health care financing proves that the budgeting of the cost of health expense in advance makes good sense to most Americans.

Today's question is: "What kind of an agency will administer the program?" A community service organization like Blue Cross-Blue Shield? A commercial insurance company. The government?

The choice should be the organization that does the best job at the lowest cost to the community as a whole—including taxpayers.

Here are a few questions to use in evaluating such a health care program. Does it provide protection after retirement? When members change jobs? When they are ill? Is a maximum proportion of the money paid in used to pay health care bills?

The Blue Cross-Blue Shield answer to each of these questions is: Yes. Unless health care financing organizations can answer all these questions in the same fashion, they are not meeting the needs of the community.

Blue Cross-Blue Shield has grown by refusing to be bound by traditional insurance practices. For example, Blue Cross-Blue Shield has never offered "loss leaders," or shifted the cost of health care to the patient by means of deductible and coinsurance, and believes that the public's

Continued on page 260



INDIANA BLUE SHIELD ISSUES 3,000,000th CHECK IN PAYMENT FOR MEMBERS' HEALTH CARE

Recently, Blue Shield wrote the 3,000,000th check that has been issued by the Indiana Plan since organization in March, 1946. R. S. Saylor, executive vice president of Blue Shield, reported that during this period more than $121,000,000 has been paid out to members for surgical, in-hospital medical, anesthesia, x-ray and diagnostic services.

The 3,000,000th check was in the amount of $200.00 and covered the doctor's bill for major surgery, paying the charges in full.

The five employees in the Blue Shield checkwriting department are now averaging some 1,800 checks a day.

Indiana Blue Shield currently has the largest membership ever—1,417,477—almost one-third of the population of the state. Total membership for the 75 Blue Shield Plans has reached 48,415,337, and nationally Blue Shield protects more than 25% of the United States population.

Labs, Pathologists Asked to Join in Serum Cholesterol Procedure Survey

The measurement of serum cholesterol is becoming more important and much more widely performed due to the relation of cholesterol metabolism to atherosclerosis. At the same time the laboratory methods for this determination are varied and produce findings which are not comparable from one laboratory to another.

The College of American Pathologists has asked its Standards Committee to recommend an analytical procedure which may be expected to give reproducible results.

A national preliminary survey of serum cholesterol estimations is being organized to disclose the present status of this procedure. All laboratory directors and pathologists in Indiana are invited to participate. They should write to Cholesterol Survey, College of American Pathologists, Prudential Plaza, Chicago 1.

OB-Gyn Part II Exams Scheduled; New, Reopened Deadline Set

Next scheduled examinations (Part II) oral and clinical, for all candidates of the American Board of Obstetrics and Gynecology will be conducted at the Edgewater Beach Hotel, Chicago, by the entire Board from April 9 through 14, 1962. Formal notice of the exact time of each candidate's examination will be sent him in advance of the examination dates.

Candidates who participated in the Part I Examination will be notified of their eligibility for the Part II Examinations as soon as possible.

New and reopened applications, and requests for re-examination in 1963 will be accepted in the office of the Executive Secretary up to July 1, 1962 which has been advanced from August 1. Candidates are urged to apply as soon as possible before that date. New applicants, re-opened candidates, and all re-examinees are required to submit a duplicate list of hospital dismissals for the preceding twelve months, before the deadline date of July the first.

Current Bulletins of the American Board of Obstetrics and Gynecology, outlining the requirements for application, may be obtained by writing to the secretary, Robert L. Faulkner, M.D., 2105 Adelbert Road, Cleveland 6, Ohio.

NEWS NOTES

Continued

Drug Information Services Established on Member Basis

A new around-the-clock drug information service has been established to answer by telephone at any hour of the day and during any day of the year physician inquiries about drugs. Indications, dosage, contra-indications, side-effects, treatment of unwonted reactions and all other information will be available.

The organization is known as Mediphone. Its headquarters are in Washington, D. C. The project will be supported exclusively by the fees paid by member physicians. Regular membership is $20 per year. The address is 1500 Massachusetts Avenue, N. W., Washington 5, D. C.

Ulcerative Colitis Teaching Film Available to Physicians

A new teaching film, "The Early Detection and Medical Management of Ulcerative Colitis," produced by Sturgis-Grant Productions, with the guidance of a group of staff physicians of the Scott-White Clinic of Temple, Texas, is now available and may be obtained by writing Ideal Pictures, 58 E. South Water St., Chicago 1. The film is 16 mm., color and talking, running time 31 minutes.

COMMUNITY SERVICE

Continued from page 256

reliance upon voluntary prepayment cannot be maintained and strengthened by forcing the family to carry more and more of the risk.

Blue Cross-Blue Shield will continue to operate on a community service, not-for-profit basis. It has faith in the voluntary system, and believes that this type of operation has proved by performance to be the best solution to the problem of financing health care for the community as a whole.

W. C. Huddlestone
Public Relations Division ◄

I. U. Names Remodeled Building For Dr. Emerson, Former Dean

Indiana University is naming the remodeled medical school building at its Medical Center in Indianapolis for the school's long-time dean, the late Dr. Charles P. Emerson.

Trustees of the University have approved the designation as recommended by a special building names committee and the School of Medicine. Dr. Emerson headed the medical school from 1911 to 1931 and was Dean when the building to bear his name was erected in 1919.

Classes which were held for years in the old structure were moved two years ago to the new Medical Science Building. The newly designated Emerson Hall will become within a few weeks the laboratories and headquarters of a number of the clinical departments of the School of Medicine.

Dr. J. E. Tether, Indianapolis, has been awarded a grant of $2,500 by the Myasthenia Gravis Foundation for research into the cause and treatment of the disease.

Closed Cardiac Massage Film Available to Physician—Teachers

"Life in Your Hands" is a training film which explains closed chest cardiac massage resuscitation. It has been produced by Smith, Kline and French in cooperation with The Johns Hopkins Medical Institutions and will be loaned free of charge to any physician who wishes to train police, fire, industrial safety, professional lifeguard and other rescue group personnel.

This is a new film produced for non-medical audiences. Already more than 100,000 physicians have seen the SK&F film "External Cardiac Massage" which was produced for medical audiences. The film may be obtained from Medical Film Center, Smith, Kline and French, 1500 Spring Garden St., Philadelphia 1. A supply of training leaflets will be sent free of charge for use with the film.

FUTURE MEETINGS, SEMINARS, COURSES

Mayo Clinic Annual Reviews To Be Given Twice

Clinical Reviews presented by the Mayo Clinic each year has been so popular that this year two identical Reviews will be presented. Each will consist of a three-day program of lectures and discussions on problems of current interest in general medicine and surgery. The first will be on March 26, 27 and 28. The second will be on April 2, 3 and 4.

Credit in Category I may be obtained by members of the American Academy of General Practice. Registration fee is $10. Attendance is limited and physicians who are interested should write M. G. Brataas at the Clinic as soon as possible to make reservations for one of the Reviews.

NEWS NOTES

Continued

Three Hoosiers Hold Posts in American Rhinologic Society

The American Rhinologic Society has announced the appointment of Dr. Walter J. Aagesen of Anderson to its committee on the Cottle Fund. Dr. Carl B. Sputh of Indianapolis is a member of the public relations committee. Dr. Lewis Morrison of Indianapolis is serving as a regional director for the Society and is also on the program committee.

Retired Mayo Clinic Editor Available for Editing, Re-write

Dr. A. B. Nevling, who has recently retired as an editor in the Section of Publications of the Mayo Clinic, is now an emeritus member of the Clinic Staff. He will be available for medical manuscript editing and rewriting, and may be consulted by members of the ISMA. His address will be 426 Fifth St., S. W., Rochester, Minnesota.

ANNUAL HEADACHE MEETING

The American Association for the Study of Headache, Annual Meeting, 9:00 to 12:00 a.m., 2:00 to 5:00 p.m., Saturday, June 23, 1962, Palmer House, Chicago. Dr. Bayard T. Horton, Mayo Clinic, Rochester, Minnesota, is President.

ISMA Invited to Surgical Congress March 5-8 in Louisville

Members of ISMA are invited to attend the 30th annual assembly of the Southeastern Surgical Congress to be held at the Brown Hotel, Louisville, March 5 to 8. Authoritative member and guest speakers will present a full four-day program on general and special surgery. There will also be a four-day program for nurses. Doctors are urged to make hotel reservations early. Further information may be obtained by writing Dr. A. H. Letton, 340 Boulevard, N. E., Atltanta 12.

Board of Health Institute Dealing with Today's Child

The Indiana State Board of Health in cooperation with other state organizations interested in child care are announcing an institute to be held in Indianapolis April 25 and 26 on the subject "Today's Child." The meeting will be held at Indiana University Medical Center, which is helping sponsor the event together with the Indiana Academy of Pediatrics, the Indiana Hospital Association, the Indiana League for Nursing and the Council of Maternal and Child Health. Physicians, dentists, nurses, hospital and health agency personnel are invited to attend. The program will be announced in next month's *Journal.*

Deaths

Elmer D. Johns, M.D.

Dr. Elmer D. Johns, long-time Zionsville doctor and member of the ISMA 50-Year-Club, passed away Dec. 25. He had practiced in Zionsville 61 years, and had resided there since 1890. Dr. Johns retired from practice three years ago.

Walter P. Moenning, M.D.

Dr. Walter P. Moenning, Indianapolis physician and surgeon, passed away Dec. 17 at the age of 65.

A 1921 graduate of the I. U. School of Medicine, Dr. Moenning was a past regent of the International College of Surgeons.

Grover M. Nie, M.D.

Dr. Grover M. Nie, 75-year-old Huntington physician, passed away Dec. 24.

Dr. Nie was graduated from Indiana University in 1911, and taught high school sciences before entering the I. U. School of Medicine, from which he graduated in 1923. He practiced in Huntington since that year.

Dr. Nie was a past president and secretary-treasurer of the Huntington County Medicine Society and had served as Delegate to ISMA Convention several years.

John W. Sluss, M.D.

Dr. John W. Sluss, Indianapolis surgeon since the 1880's, passed away Dec. 20 at the age of 94. He had retired two years ago.

The author of a book on emergency surgery which was at one time used as a textbook, Dr. Sluss was former superintendent of the Indianapolis City Hospital and past president of the Marion County Medical Society.

Dr. Sluss was a graduate of Indiana Medical College and a member of the American College of Surgeons.

Frank E. Wiedemann, M.D.

Dr. Frank E. Wiedemann, who was credited with participating in the first successful Caesarean section in Indiana in 1896, passed away Dec. 24 at the age of 89. The Terre Haute physician had retired last June after practicing 69 years.

Dr. Wiedemann was an early user of x-ray and music as therapy. He was a graduate of Rush Medical School, Chicago, and had also studied abroad.

County District News

Tenth District

Dr. Leonard Neal was elected president of the Tenth District Medical Society at a fall meeting of the group. Assisting him is Dr. Ernest Beaver, secretary; Dr. Ralph E. Eades, Valparaiso, was named Tenth District Alternate Councilor.

Twelfth District

Members of the Twelfth District Medical Society are planning their annual meeting for Wednesday May 16 in Ft. Wayne. Dr. John D. VanNuys, Dean of the I. U. School of Medicine, will be keynote speaker.

Adams

Members of the Adams County Medical Society heard a talk on psychiatry in Russia at their Nov. 12 meeting. Twelve members attended. The group held business sessions in October and December.

Bartholomew-Brown

Colonel Hoff of Bakalar Air Force Base showed a film on "Seconds for Survival" at the Dec. 13 meeting of the Bartholomew-Brown Medical Society. During the business session, the following 1962 officers were named: Drs. E. W. Williams, president; C. Clay Bigley, vice president; E. K. Williams, secretary-treasurer; Kenneth Schneider and David Adler, delegates; and Robert Seibel and Henry McCullough, alternates.

Continued

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COUNTY, DISTRICT

Continued

Cass

Dr. Stanley Chernish, Indianapolis, spoke on Iron Metabolism at the Dec. 4 meeting of the Cass County Medical Society.

Clark

Dr. John Paris discussed insurance at the Dec. 19 meeting of the Clark County Medical Society. Following the discussion, members named the following physicians officers for 1962: Drs. E. S. Reed, president; Thomas R. Havens, vice president; George Wolverton, secretary-treasurer; E. S. Goodman, delegate, and Dr. Wolverton, alternate.

Daviess-Martin

Members of the Daviess-Martin Medical Society re-elected their 1961 officers to serve in 1962 at a meeting Dec. 21. They include Dr. Robert Rang, president; and Dr. C. Philip Fox, secretary.

Dubois

Members of the Dubois County Medical Society have elected Dr. Thomas H. Gootee president for 1962. Dr. Harry Craig is the newly-elected secretary-treasurer.

Elkhart

Dr. K. S. Lim, director of medical sciences research laboratory at Miles Laboratories, spoke on "Medicine in the Far East" at the Dec. 7 meeting of the Elkhart County Medical Society. The 75 members present also heard Mrs. Burton Kintner, ISMA Auxiliary president, discuss current auxiliary projects.

W. B. SAUNDERS COMPANY features the following recent books in their full page advertisement appearing elsewhere in this issue:

FONTANA and EDWARDS: *Congenital Cardiac Disorders*
a vital statistical study to aid you in a better understanding of malformations of the heart.

WILLIAMS: *Textbook of Endocrinology*
a definitive source emphasizing the effects of endocrine changes on body metabolism.

1962 Current Therapy
today's best treatments—ranging from external cardiac massage for cardiac arrest through current use of antibiotics in treating bacterial infections.

Fayette-Franklin

Dr. William F. Kerrigan was elected 1962 president of the Fayette-Franklin Medical Society at a Dec. 12 meeting. Assisting him are Drs. Francis B. Mountain, vice president and J. L. Steinem, secretary-treasurer.

Floyd

Members of the Floyd County Medical Society elected the following 1962 officers at their Dec. 8 meeting: Drs. John M. Paris, president; Nelson Wolfe, vice president; Daniel Cannon, secretary-treasurer; Donald LaFollette, delegate and Dr. Wolfe, alternate.

Fountain-Warren

Dr. Theodore C. Pearson is the new president of the Fountain-Warren Medical Society. Assisting him are Drs. V. F. Raymundo, vice president; E. M. Humphrey, secretary-treasurer; Peter R. Petrich, and James W. Crain, delegates; and Lowell R. Stephens and Carl A. Nelson, alternates.

Hendricks

Dr. Fred Warbinton has been elected president of the Hendricks County Medical Society. Other new officers are Drs. Elmer Koch, vice president; James Black, secretary-treasurer; O. T. Scamahorn, delegate and M. O. Scamahorn, alternate.

Henry

Dr. Robert Forney spoke on "Arsenic, Strychnine and You" at the Nov. 16 meeting of the Henry County Medical Society. Results of the election of 1962 officers are: Drs. William C. Heilman, Jr., president; L. H. Wiatt, vice president; and A. E. Hollenberg, secretary-treasurer.

Howard

Recent meetings of the Howard County Medical Society included a program Oct. 2 by Mr. Dow Richardson, editor of the *Kokomo Tribune*, who discussed M.D.-press relationships. Report by Mr. Joseph Palmer on I-HOPE, Nov. 7; and Mr. John Wyttenbach, Medical Consultant to the Division of Vocational Rehabilitation, State of Indiana, spoke on Disability Decision at the Jan. 2 meeting. Newly-elected county officers are:

Drs. Ernest Murray, president; Donald Fields, first vice president; Carl Ault, sec-

ond vice president; Warren N. McClure, secretary-treasurer; Garvey Bowers, delegate; and Thomas Conley, alternate.

Lawrence

Dr. Raymond Duncan is the newly-elected president of the Lawrence County Medical Society. Serving with him are Drs. William R. Noe, president-elect; F. M. Manzanero, secretary-treasurer; H. T. Hammell, delegate; and J. P. Scherschel, alternate.

Noble

Members of the Noble County Medical Society elected the following officers for 1962 at their Dec. 20 meeting: Drs. Herman Hepner, president; Thomas Slough, vice president; C. F. Stallman, secretary-treasurer; Robert Bryan, delegate; and Quentin Stultz, alternate.

Orange

Newly-elected officers of the Orange County Medical Society are Drs. B. E. Sugarman, president; C. X. McCalla, vice president; Philip T. Hodgins, secretary-treasurer and delegate; and Dr. Sugarman, alternate.

Pike

Dr. Milton H. Omstead will serve as president of the Pike County Medical Society during 1962, and will also be delegate to ISMA Convention.

Rush

Elected as officers for 1962 by the Rush County Medical Society are Drs. Stephen Smith, president; Kenneth Corpe, vice president; and Charles Sheets, secretary-treasurer.

Owen-Monroe

Newly-elected officers of the Owen-Monroe Medical Society are Drs. James N. Topolgus, president; W. M. Lundblod, vice president; John M. Miller, secretary; Robert E. Lyons, Jr., treasurer; P. W. Holtzman, board of censors; Clarence R. McIntire and Frederick R. Smith, delegates; and William C. Link and Oran E. Kay, alternates.

Perry

Dr. Gene Ress spoke on Benign Cystic Tumors of the Ovary at the Dec. 12 meeting of the Perry County Medical Society. Officers elected by the group are Drs. Noel L. Neifert, president; Bernard Kemker, vice president; Dr. Ress, secretary; Dr. Fred Smith, Jr., Delegate; and Dr. Kemker, alternate.

Scott

Dr. Marvin L. McClain is the newly-elected president of the Scott County Medical Society. Assisting him is Dr. James A. Sabens, secretary-treasurer.

Sullivan

Serving as 1962 officers of the Sullivan County Medical Society are Drs. Kenneth Eskew, president; Marion H. Bedwell, vice president; J. S. Brown, secretary-treasurer; Joe E. Dukes, delegate; and J. H. Crowder, alternate.

Tippecanoe

Dr. W. R. VanDenBosch is the newly-elected president of the Tippecanoe County Medical Society. Other new officers are Drs. Robert C. McAdams, vice president; R. C. Bolin, secretary; and George M. Underwood, treasurer. ◄

U. S. Leads in Medical Sciences

Never before in the 999 centuries of man's previous existence on earth has the standard of medical care been higher. Never before have we had the skills and the tools to cope with disease more effectively. Never before has progress in the health sciences come more rapidly. Whether or not we are ahead of Russia or the rest of the world in science generally, I am not qualified to judge. But I can say without fear of contradiction that we lead the world in the medical sciences, the invention of new and better drugs, and the provision made for the physical and mental well-being of our American people.—Theodore G. Klumpp, M.D., President, Winthrop Laboratories, to Massachusetts Medical Society.

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Volume 55 — March 1962 — Number 3

Third Place Winner
Journal Medical Essay Contest

Fat Embolism

GEORGE F. RAPP, M.D.*
Indianapolis

FAT EMBOLISM is a definite clinical syndrome which is often misdiagnosed, untreated, and verified only by postmortem examination. This is unfortunate when we realize that fat embolism is a very real hazard following fractures of the long bones. If the salient points in the syndrome of fat embolism are kept in mind, earlier diagnosis and a higher survival rate can be achieved.

It is the purpose of this paper to discuss briefly the literature of fat embolism, point out the classic clinical findings in the fat embolism syndrome, present a case recently seen, and briefly discuss the current theories on the therapy of fat embolism.

Review of Literature

Zenker[1] injected milk into the veins of rabbits and first produced deaths due to fat embolism in experimental animals. Gauss[2] outlined the steps necessary for the entrance of body fat into the blood stream: first, a rupture of the envelope of the fat cells; second, a tearing of veins; third, a local increase in pressure due to hematoma forcing the fat into the open veins. This is the most commonly held theory as the mode of embolism, as bone marrow is often found along with embolic fat in the lungs.[3, 4]

Lehman and Moore[5] postulated that the fat in fat embolism came from fat depots in the body, as they did not think there was enough fat in a long bone to cause death. They suggested the products of tissue decomposition and fat solvents were capable of breaking the plasma colloidal lipid suspension; thus this might be the source of the fat seen in fat embolism. Other contributors have supported this view.[6, 7] Peltier[8, 9] studied human femurs and noted there was sufficient fat to cause death. Recently it has been suggested that perhaps both processes are usually present.[10]

Toxic properties of neutral fat and free fatty acids have been studied.[9, 11] Injection of free fat in animals causes sudden dyspnea, frothing at the mouth and venous engorgement. At autopsy the animals have dilatation of the right side of the heart and the lungs are moist but not hemorrhagic. In contrast, free unsaturated fatty acids when injected cause damage on a chemical basis. In these cases there is a latent period of 24

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to 72 hours and dyspnea comes on slowly. Following this the animals show a profuse flow of serosanguineous fluid from the nose, hyperpyrexia, no venous distention, and a fall in hemoglobin out of proportion to the injury. At autopsy there are petechiae on the skin, the lungs are markedly engorged with a bloody exudate and the brain shows areas of petechiae and necrosis in the white matter.[12]

The fat globules which cause fat embolism are between 7 and 14 micra in diameter in contrast to those of the normal blood which measure 5 to 7 micra in diameter and can easily pass through the capillaries.[9] Scuderi[13] studied the flow of fat in the capillaries in the foot of a frog and noted that one large particle could pass through the capillaries by an "ameboid-type" movement. However, if the fat globules came in rapid succession they completely obstructed the capillaries and in time produce a state of shock due to the sudden occlusion of the terminal arterioles. The shock potentiated more fat embolism, overloaded the right side of the heart and produced sudden demise. If the animal survived the first stage a chemical phase started after 24 to 72 hours during which neutral fat is hydrolyzed into free fatty acids. Fatty acids, which are seven times more toxic than neutral fat,[13] cause endothelial damage, capillary leakage, and extravasation of red cells.

Embolic fat seen in the brain and viscera has passed through the lung; with the loss of pulmonary vascular tone, more emboli pass this barrier.[14]

Occasionally articles have disputed the pulmonary entity of the fat embolism syndrome.[12, 15] These authors believe the pulmonary pathology called "fat-embolism" represents a type of change due to anoxemia.

Clinical and Laboratory Findings in Fat Embolism

Fat embolism should be suspected in patients with recent fractures who show signs of shock or develop dyspnea and hyperpyrexia. It should also be suspected in decompression illnesses, ether convulsions, or central nervous system disorders following anesthesia.[16] Fat embolism has been found to occur more commonly in alcoholics and in patients with liver disease. It has also been seen following severe burns or soft tissue trauma.[17]

First or Mechanical Phase

The clinical symptoms of fat embolism present two classic case types.[18] The first is the *mechanical* or *shock* phase in which a patient, shortly after some form of trauma, develops a massive embolization of free fat. This causes congestion of the arterioles of the lungs followed by right heart failure, thready pulse, dyspnea, and hypotension. Laboratory aids in the diagnosis in this stage are the "Sizzle" test of Scuderi[13] or Adler's microscopic and macroscopic methods.[19] These tests depend on fat rising to the top of urine, and should therefore be made from the last drops of urine evacuated from the bladder or from the supernatent of a 24 hour urine specimen. The "Sizzle" test is positive if a wire loop soaked with the supernatent urine SIZZLES when placed over an open flame. Adler's tests involve staining the supernatent urine with Sudan III for the microscopic examination or 1% aqueous Nile blue sulfate for a macroscopic determination. A serum lipase is helpful if found elevated from 2 to 6 hours after injury; it returns to normal after 24 hours.[9] Peltier's[20] fluorescence microscopy is difficult and used mainly in research centers. None of the tests are accurate in a high percentage of the cases and therefore: *negative results do not rule out fat embolism.*

Second or Chemical Phase

A patient who survives the first phase of fat embolism or has a subclinical first phase may proceed to the second or *Chemical* phase. This starts on the second or third day following trauma with increasing dyspnea and polypnea, a tachycardia of 100 to 140, a pyrexia of 102 to 103, serosanguineous exudates, hemoptysis, disorientation and other neurologic signs, and often petechiae over the upper part of the body. Hypotension does not develop unless oligemia has gone untreated.[12] The tests for fat in the blood and urine are of less value at this stage. The diagnosis can best be

made by (1) the sudden fall in hemoglobin concentration and (2) a chest film showing multiple areas of embolization.[18] Recently needle biopsy of the kidney and immediate frozen sections have been suggested for patients in coma in whom fat embolism is suspected.[12] Patients often survive if they live for seven days after the trauma, as the process reverses itself, usually by crisis.[18]

Case Presentation

A 27-year-old white male was involved in an auto accident on February 19, 1961, and was transferred to our hospital the following day for treatment of a fracture of the middle third of the right femur. He was immobilized in Buck's traction upon arrival at the hospital and was found to be alert and cooperative. History revealed that he was thrown from the car and received a blow to the right temple. He was unconscious for four hours thereafter, the significance of which was complicated by a history of drinking shortly before injury. His past history was unrevealing except for a family history of tuberculosis.

On the day of admission his blood pressure was 130/80, pulse 100, respiration 24 and temperature 102°. Examination of the right temporal area revealed a slight hematoma. The chest was clear to percussion and auscultation and the rest of the physical examination was normal except for the extremely swollen right thigh. The patient was continued in traction. The white blood count was 8,500, his hemoglobin was 13½ gms. Urinalysis was normal except for a 1-plus albumen.

On the second hospital day his blood pressure was 120/78, pulse 124, respirations 28, temperature 103°. The patient became dyspneic and developed hemoptysis. A chest

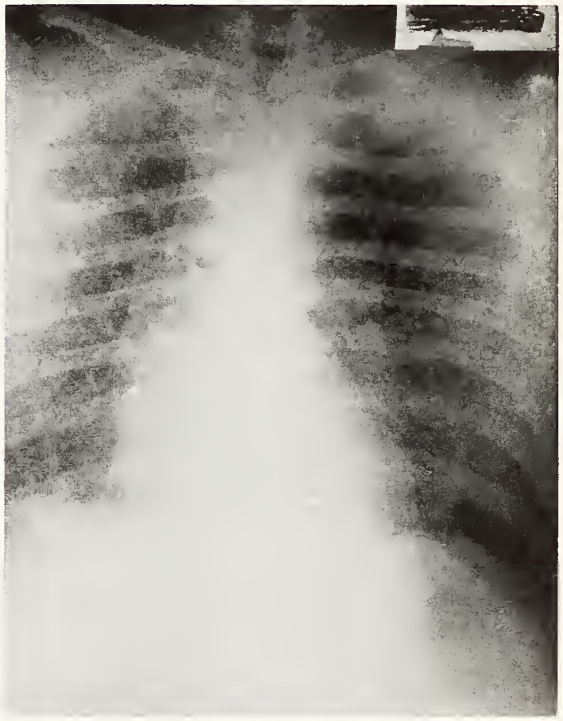


FIGURE 1

X-RAY SHOWING multiple lesions throughout both lung fields.

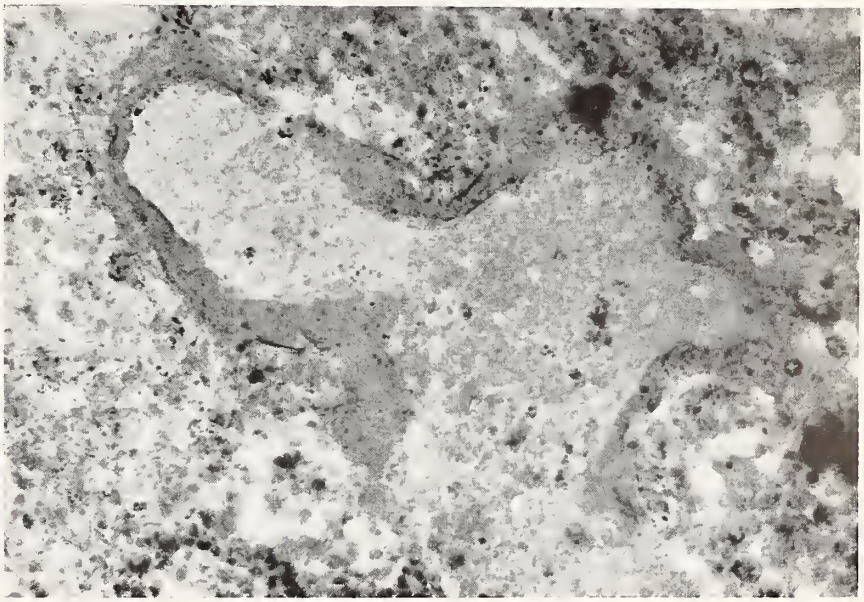


FIGURE 2

FROZEN SECTION of lungs stained with Sudan III, showing pulmonary vessels lined with fat.

x-ray showed multiple "lesions" throughout both lung fields. (Figure 1)

On the third hospital day the blood pressure was 140/84, pulse 130, respirations 44, temperature 103°. The patient was very dyspneic and restless. Later in the day he became semicomatose. There were no localizing neurological signs. The spinal fluid was normal, urine test for fat was negative, hemoglobin was 10 gms. Therapy consisted of nasal oxygen, blood transfusion, intravenous fluids and antibiotics.

On the fourth hospital day his blood pressure was 130/88, pulse 144, respirations 44, temperature 103°. He continued to be semicomatose. He had no petechiae at this time. Urine test for fat was negative. The supportive care was continued and 500 cc of 5% glucose-5% ethyl alcohol was started, but discontinued when the temperature spiked to 105°.

On the fifth day after admission (sixth day after injury) the patient was comatose and cyanotic. He expired and permission for autopsy was granted.

At autopsy the lungs appeared dark red and hemorrhagic, with an appearance similar to multiple hemorrhagic pulmonary infarcts. They weighed 3,010 gms. each. (Normal lungs average 1100 gms.) The pulmonary vessels and bronchi were patent grossly. Frozen section of the lungs stained with Sudan III revealed the pulmonary vessels to be lined with fat which seemed to cover the endothelium (Figure 2). Paraffin section showed similar changes (Figure 3). The endothelium was undergoing degeneration and there was marked hemorrhage into the parenchyma.

The brain was edematous. There was an uncal herniation over the right temporal area which produced compression of the midbrain. On coronal section the entire white matter including the corpus callosum contained petechiae which did not extend to the cortex. The lesions were more pronounced in the posterior part of the brain. Microscopic frozen sections stained with Sudan III revealed that the capillaries contained fat. Areas of necrosis and hemorrhage were seen about the capillaries (Figure 4).

The kidneys appeared grossly normal, but on microscopic section fat vacuoles were found in the glomerular vascular tufts (Figure 5). The rest of the autopsy revealed no significant abnormalities.

Therapy of Fat Embolism

Fat embolism is the major cause of death in patients suffering from isolated long bone fractures.[9] The physician can aid in its prevention by splinting all fractures properly, transporting patients only when necessary, elevating fractures to let the fat "float to the top," and by using a pneumatic tourniquet during orthopedic procedures on extremities when possible.[21] It is also a good

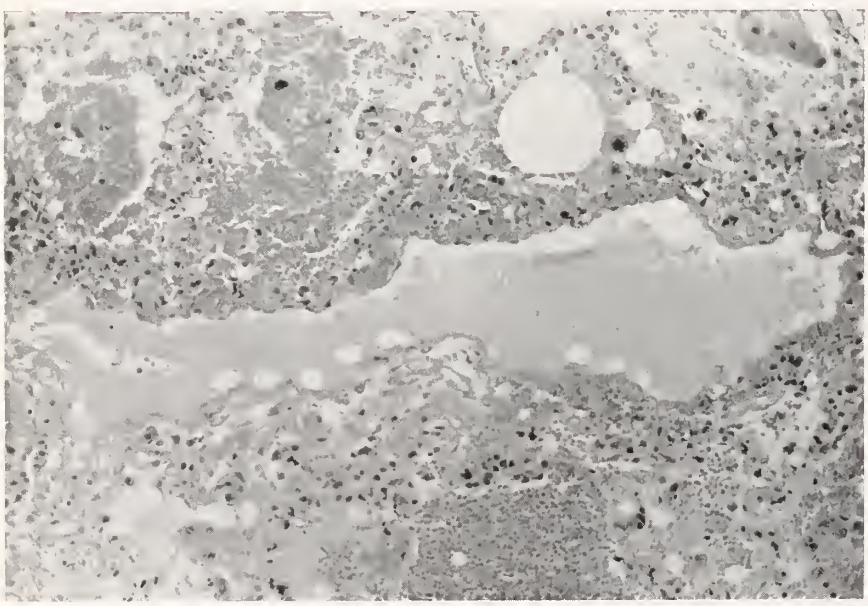


FIGURE 3

PARAFFIN SECTION showing changes similar to those in Figure 11. The fat is dissolved out leaving clear spaces lining the vessel.

plan to obtain hemoglobin determinations on the first and third day following injury.[18] An operative procedure on a fracture should not be undertaken in the face of a falling hemoglobin of unknown etiology. Ether anesthesia should be avoided for these procedures.[16]

If a patient is suffering from the *mechanical* or *shock* phase of fat embolism proper therapy would consist of (1) oxygen, by pressure respirator if needed, (2) blood transfusion, (3) splinting and elevation of fractures, (4) rapid digitalization for right heart failure, and (5) other general therapy for shock. (6) Three intravenous infusions of 1000 cc of 5% ethyl alcohol-5% glucose (for a 200 lb. patient) are given 12 hours apart,[18] (7) heparin 25 mgm daily.[22, 23] Application and release of a tourniquet are also used in therapy, but the value of this is not universally agreed upon by all authors.

The *chemical* phase of fat embolism should be suspected in all fracture patients with hyperpyrexia, tachycardia, respiratory distress and restlessness. Treatment is the same as in the mechanical phase, but the lipolysing agents, i.e., alcohol and heparin, play a greater roll. A pressure respirator is definitely indicated here if the patient is in coma.[23] If the patient can be kept alive

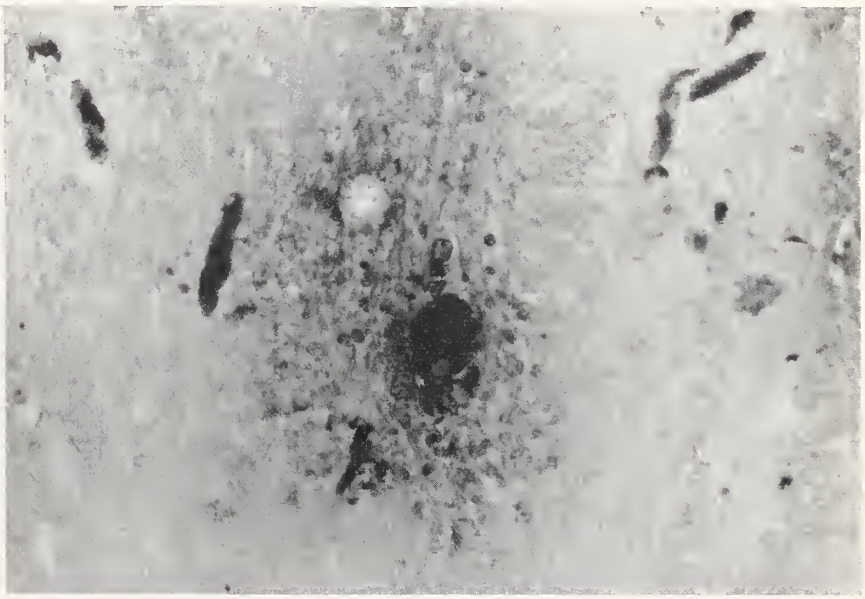


FIGURE 4

THE FAT BLOCKING the vessel is stained with Sudan stain; there are areas of necrosis and hemorrhage.

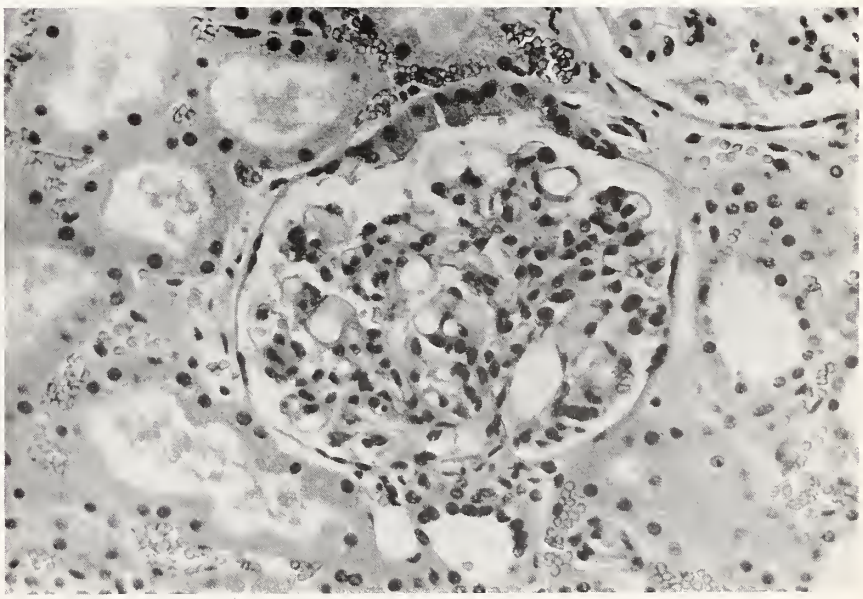


FIGURE 5

FAT VACUOLES (fat dissolved away) found in glomerular vascular tufts in kidneys.

seven days from the day of trauma, he will probably survive.

REFERENCES

1. Zenker, F. A.: Beitr. a. norm. u. path. Anat. d. Lunge, 1862. (As noted by Perkins, B. S.: Fat Embolism. Case Report and Review of Literature, *Vir. Med. Monthly* 86:154, 1959.)
2. Gauss, H: The Pathology of Fat Embolism. *Arch. Surg.* 9:593, 1924.
3. Rappaport, H., Raum, M., Harrell, J. B.: Bone Marrow Embolism. *Am. J. Path.* 27:407-433, 1951.
4. Berkhieser, S. W., Giffen, H. K.: Bone Marrow and Fat Embolism Following Multiple Fractures: *JAMA* 147:564-566, 1951.
5. Lehman, E. P., Moore, R. M.: Fat Embolism, Including Experimental Production Without Trauma. *Arch. Surg.* 14:621, 1927.
6. Davis, H. L., Musselman, M. M.: Blood Particle Agglomeration and Fat Embolism, *Internat. Rec. Med.* 167:439, 1954.
7. Johnson, S. R., Svanborg, A: Investigations with Regard to the Pathogenesis of So-Called Fat Embolism. Serum Lipids and Tissue Esterase Activity and the Frequency of So-Called Fat Embolism in Soft Tissue Trauma and Fractures. *Ann. Surg.* 144:145, 1956.
8. Peltier, L. F.: Fat Embolism: The Amount of Fat in Human Long Bones. *Surg.* 40:657, 1956.
9. Peltier, L. F.: Collective Review: An Appraisal of the Problem of Fat Embolism. *Internat. Abst. Surg.* 104:313, 1957.
10. LeQuire, V. S., et al.: A Study of the Pathogenesis of Fat Embolism Based on Human Necropsy Material and Animal Experiments. *Am. J. Path.*, 35:999, 1959.
11. Peltier, L. F.: Fat Embolism. The Toxic Properties of Neutral Fat and Free Fatty Acids. *Surg.* 40:665, 1956.
12. Sevitt, S.: The Significance and Classification of Fat-Embolism. *Lancet* 825, Oct. 1960.
13. Scuderi, C. S.: Fat Embolism: A Clinical and Experimental Study. *Surg. Gyn. Obst.* 72:732, 1942.
14. Swank, R. L., Dugger, G. S.: Fat Embolism. A Clinical and Experimental Study of Mechanisms Involved. *Surg. Gyn. Obst.* 98:641, 1954.
15. Whitson, R. O.: A Critique of Fat Embolism, *J. of Bone and Joint S.* 33A:447, 1951.
16. Gale, J. O., Gregory, C. F., Jenkins, M. T.: Fat Embolic Phenomena During Anesthesia and Surgery. *Texas State J. of Med.* 55:759, Sept. 1959.
17. Scully, R. E.: Fat Embolism in Korean Battle Casualties. *Am. J. Path.* 32:379, 1956.
18. Pipkin, G.: The Early Diagnosis and Treatment of Fat Embolism. *Clinical Orthopaedics* 12: Fall, 1958.
19. Adler, F., Peltier, L. F., Lai, S. P.: Fat Embolism: The Determination of Fat in the Urine by Microscopic and Macroscopic Methods. *Surg.* 47:959, 1960.
20. Peltier, L. F.: Fat Embolism: Detection of Fat Emboli in Circulating Blood. *Surg.* 36:198, 1954.
21. Peltier, L. F.: Fat Embolism. The Prophylactic Value of a Tourniquet, *J. of Bone and Joint S.* 38A:835, 1956.
22. Cobb, C. A., Jr., et al.: Therapy of Traumatic Fat Embolism with Intravenous Fluids and Heparin. *Surg. Forum* 9:751, 1958.
23. Love, J., Stryker, W. S.: Fat Embolism: A Problem of Increasing Importance to the Orthopaedist & Internist. *Ann. of Int. Med.* 46:349, 1957. ◄

Isolation of Pasturella Tularensis In A Community Hospital

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ISOLATION OF PASTURELLA tularensis is seldom accomplished or attempted in the clinical laboratory because of difficulty in growing the organism on standard culture media and lack of availability of specific media. Because of the high virulence of Pasturella tularensis there is reluctance by most medical technicians to attempt its isolation for fear of laboratory infection.

Our purpose here is to present a case report to demonstrate a safe and relatively easy technic for isolation and identification of Pasturella tularensis. The culture method is far superior to serological means because a working diagnosis can be established for definitive treatment within 48-96 hours while serological diagnosis is not positive at least until the second week and may be confusing if the patient has had Brucellosis.

Case Report

The patient was a 67-year-old white male who was seen in the home on Nov. 25, 1960 prostrated with a high fever. He gave the history of having found a dead rabbit which he took home to clean for his dog. He cleaned the rabbit with his bare hands five days prior to his admission and noted that the rabbit was green on the inside. The day after cleaning the rabbit he began to feel badly. One day later he became aware of redness and soreness of two small abrasions on his finger and he began to have chills, malaise and headache.

This continued until he was seen by his physician and at that time physical examination revealed an acutely ill white male with temperature 102°, pulse 112, and blood pressure of 140/90. The only positive findings were an epitrochlear node on the left which was tender and two pustules on the left index finger which were tender. Past history was entirely negative and the patient claimed he had never been to a doctor or in a hospital.

He was admitted to the hospital immediately and the pustules were cultured on the media described below. Blood cultures were done every 4 hours for 3 times and agglutinations for Brucella, tularemia, typhoid, paratyphoid and proteus OX-19 were done. The agglutinations and blood cultures were negative the day of admission. The hemogram revealed a hemoglobin of 14 gms, a hematocrit of 43% and a total white blood count of 10,050 with 4 stabs, 68 segmented cells, 23 lymphocytes and 5 monocytes. The culture from the pustules on the finger grew out minute gram negative pleomorphic rods with coccoid forms predominating which were compatible with Pasturella tularensis. These were confirmed at the State Board of Health with antiserum.

Sixteen hours after admission the patient was started on demethyl chlortetracycline 300 mg every 6 hours for 4 doses then 150 mg every 6 hours for a total of 7 days. The patient's temperature was normal in 24 hours and remained so. He had no complications or relapses.

Agglutination for Pasturella tularensis was negative five days after admission.

Two weeks after admission a repeat agglutination for Pasturella tularensis was positive four plus in a 1:1280 dilution.

* From The Bartholomew County Hospital.

Bacteriological Diagnosis

Isolation: Primary isolation was obtained from the site of the local lesion. Primary lesion occurred on the finger as a result of contact with the blood of the infected rabbit. Specimen was collected on sterile cotton-tipped swabs.

Bacteriologic Studies: There were five kinds of culture media used for initial growth: brain-heart infusion broth, containing paraaminobenzoic acid and agar (BBL), Fluid thioglycollate medium (BBL), Trypticase soy agar base (BBL) with 5% human blood, Eugonagar (BBL) containing 5% human blood and Cystine Heart Glucose agar (Difco) containing 2% hemoglobin. The latter medium was prepared in double strength. Cystine trypticase semisolid media (BBL) containing 1% fermentable substances (dextrose, maltose, mannose, sucrose, mannitol, salicin, xylose, and raffinose) were used to test the fermentative ability of the organisms. Incubation temperature was 37°C.

Cultural characteristics and morphology: Colony development occurred only on cystine heart glucose agar. Only slight growth was observed in two days, but good growth was obtained in four days. The colonies formed were droplike, minute, transparent, mucoid in consistency and readily emulsifiable. Minute gram negative rods were seen in smears from cystine heart agar plates. The bacterium was somewhat difficult to stain either by the Gram or methylene blue methods; carbol fuchsin or aniline gentian violet were very satisfactory. Biopolar staining was observed. Our identification of the organism was corroborated by Mrs. Jessie Boots, of the Indiana State Board of Health, Indianapolis, Indiana.

Biochemical characteristics: No growth occurred in carbohydrate media after seven days so they were discarded. No other efforts were made to obtain growth in broth cultures.

Serology: Serologic technic was used for confirmation. Agglutination was obtained in a 1:800 dilution.

Discussion

The bacilli may be present in the blood during the first week of illness although cultures made from man are unsuccessful. Blood isolation is best obtained by guinea pig inoculation and culture from necrotic foci found in the liver, spleen and lungs of the pig autopsy. Animals are not available in most small hospitals and commercial blood culture media preparations will not support development; therefore the site of the primary lesion presents the best source of obtaining a culture. Direct cultivation from the blood is rarely possible but it has been accomplished.

Cystine Heart Glucose Agar is prepared commercially and laboratory preparation is easily accomplished by following the prescribed directions. The medium may be prepared along with other clinical laboratory routine culture media and stored in the refrigeratory at 2 to 10° C. The media should be brought to room temperature before inoculation.

As one might know when cultures are obtained from a primary lesion, usually *Staphylococcus* develops first, frequently in 24 hours, but the colonies are much larger than those produced by the tularemia bacilli. Development of Pasturella tularensis is usually slow and late. Quick identification of plate colonies may be obtained with tularemia specific antisera which may be obtained commercially or from the state laboratory. Also we think that these studies may be made with safety if strict aseptic technic is maintained.

We feel that identification by direct culture technics offers a great advantage in specific treatment of Pasturella tularensis infections and in this case gave us our diagnosis nine days before the serological technics could do it. We feel that any community hospital should have a few plates of cystine heart glucose agar prepared at all times and this is particularly true during hunting seasons when infection rates seem to be the highest.

The treatment of this case was quite effective with demethyl chlortetracycline and we would recommend that this drug is at least as effective as streptomycin and chlortetracycline which have been previously used.

Summary

A case of tularemia is presented with emphasis on isolation technics and clinical advantages of primary isolation and identification. The following points are emphasized:

1. Isolation and identification can give the diagnosis in 48-96 hours while serological technics are not positive for two weeks.
2. Isolation from blood is very difficult, and the primary pustular lesion is the best source of material to culture.
3. Cystine Heart Glucose agar is specific, readily available, and should be kept made up; at least, during hunting season.
4. Demethyl Chlortetracycline appears to be quite adequate in treatment of tularemia.

REFERENCES

Francis: *Jour. Bact.*, 1942, 43-343.

Tamura and Gibly: *Jour. Bact.*, 1943, 45:361.

Foshay: *Ann. Rev. Microbiol.*, 1950, 4:313.

Bell, Owen, Larson: *Jour. Infect. Dis.* 1955, 97:162.

Burrows, Porter, Moulder: *Microbiol.*, 1959, 17:531-534. ◄

We regret that the legends on these two graphs were transposed on page 40 in the January issue of The Journal. We herewith reprint the corrected version with apologies for any inconvenience caused by the error.

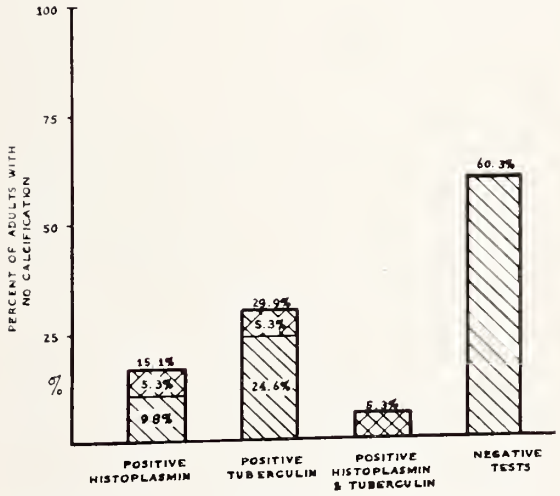


FIGURE 5

CORRELATION of results of skin tests on 304 adults who did not show calcification on roentgenograms of the chest.

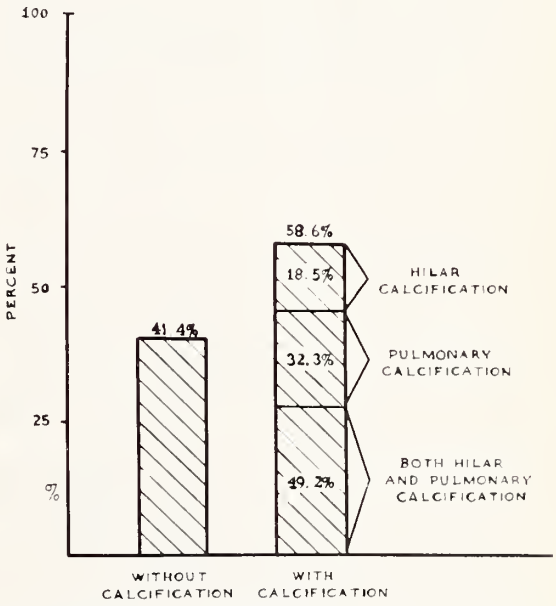


FIGURE 6

OCCURRENCE of calcification on chest roentgenograms in 111 adults with positive Histoplasmin skin test.

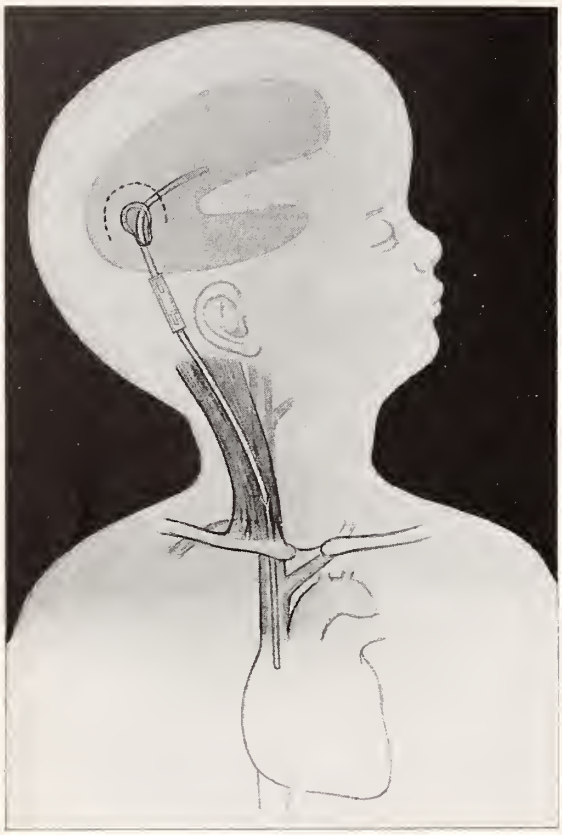


FIGURE 1
DIAGRAMATIC REPRESENTATION of ventriculo-jugular shunt.

The Holter Valve in The Treatment of Hydrocephalus

JOHN R. RUSSELL, M.D.
Indianapolis

INGENIOUS OPERATIONS abound in the annals of man's efforts to cure hydrocephalus. Removal of the choroid plexuses of the lateral ventricles of the brain is aimed at reducing the production of cerebrospinal fluid. Most operations have been designed to shunt the excess cerebrospinal fluid from the head to some absorptive cavity or orifice of the body. Thus efforts have been made to drain the cranial fluid into the pleural cavity, the peritoneal cavity, the gall bladder, the ureter, and the mastoid air cells. The high percentage of failure in these operations led many neurological surgeons to be wary of advocating surgery for hydrocephalus.

In 1951 Nulsen and Spitz[1] reported a single case in which brilliant success in the relief of hydrocephalus was obtained by shunting cerebrospinal fluid from the lateral ventricle to the jugular vein. The ventricular and jugular catheters were connected by a valve which prevented backflow of blood into the tubing. Attempts to repeat this drainage procedure in other patients were unsuccessful, however, owing to mechanical imperfections of the valve.

In 1956 Mr. John W. Holter devised a valve which nearly always functions perfectly. The Holter valve consists of two tiny reed-type check valves connected in series by a piece of silicone rubber tubing. The valve permits outflow of fluid from the brain only when the intraventricular pressure exceeds the pressure for which the particular valve is calibrated.

Technic of performing the shunt has been described by Carrington,[2] based upon the extensive experience of Spitz. The Holter valve is placed subcutaneously a little behind the right ear. A ventricular catheter is connected to the proximal end of the valve and inserted through a trephine opening into the right lateral ventricle. A silicone

rubber catheter is connected to the distal end of the valve and passed into the right internal jugular vein sufficiently far so that the end of the shunt tube lies in the superior vena cava or the right atrium (Figure 1). This has been variously designated as ventriculo-jugular shunt, ventriculo-caval shunt, ventriculo-atrial shunt or ventriculo-venous shunt.

Performed in 33 Patients

This report concerns the results of ventriculo-jugular shunt performed in 33 patients at the Riley Memorial Hospital. All of these patients have been followed for at least three years since the ventriculo-jugular shunt was done. All patients in this series had hydrocephalus which was acquired in the first year of life. Twenty-nine of the patients were less than one year old when the shunt was performed, ranging in age from 9 days to 10 months. The other four were 27 months, 29 months, 32 months and 7 years old, respectively, at the time the shunt was done. Unsuccessful attempts to shunt the cerebrospinal fluid into the ureter had previously been made in three of the patients, and one had previously had an unsuccessful ventriculo-salpingostomy.

The 33 cases of infantile hydrocephalus were of varied etiology. Fifteen had meningomyelocele and presumably had an Arnold-Chiari malformation associated with the hydrocephalus. In 11 other patients the hydrocephalus was communicating, and in most cases followed meningitis. Seven others had non-communicating hydrocephalus, most commonly due to atresia of the aqueduct of Sylvius. The 33 patients include all those with hydrocephalus acquired in infancy in whom ventriculo-jugular shunts were performed between June, 1957 and April, 1958, with the exception of two patients who could not be traced for follow-up three years postoperatively.

As a control group, we selected all the infants at Riley Memorial Hospital who had been subjected to various other shunt procedures for hydrocephalus, and for whom follow-up information was available for at least three years postoperatively. There were 46 patients in this group. The etiologies of their hydrocephalus were varied, as in the ventriculo-jugular shunt group, but the control group contained only about one-half as many patients with Arnold-Chiari malformation. Nearly half of the control group had lumbar cistern-ureterostomy performed as the initial shunt procedure. The remainder had had ventriculo-salpingostomy, ventriculo-ureterostomy, lumbar cistern - peritoneostomy, lumbar cistern - salpingostomy, ventriculo-cisternostomy, third ventriculostomy, or shunting of ventricular fluid into Stensen's duct. Many patients required multiple operations. None of the procedures employed in the control group seemed to give results obviously better than the others, and so it is felt justifiable to report the results only for the group as a whole.

Survival Rate Far Better

The survival rate following ventriculo-jugular shunt is far better than after the other shunts used in the control group (Figure 2). Three years post-operatively 70% of the patients having had ventriculo-jugular shunts were alive as compared with the 18% three-year survival after the other shunts. However, two patients in the ventriculo-jugular shunt series died shortly after the third anniversary of their surgery. Thus an even longer period of observation will be necessary to determine the true survival time of these patients.

Amongst the patients undergoing ventriculo-jugular shunt, those having non-

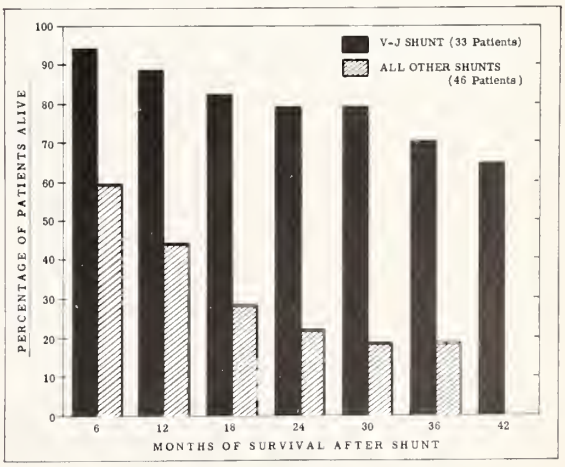


FIGURE 2

MORTALITY AFTER V-J SHUNT

TYPE OF HYDROCEPHALUS	NO. OPER.	LIVING 3 YRS. POST-OP.	DEAD	MORTALITY %
ARNOLD-CHIARI MALFORMATION	15	11	4	27
COMMUNICATING	11	7	4	37
NON-COMMUNICATING	7	3	4	57
TOTALS	33	21	12	37 (Av.)

FIGURE 3

communicating hydrocephalus seemed to have the highest mortality (Figure 3) though the number of cases is too small for statistical comparison.

Of the 12 deaths in the ventriculo-jugular shunt series, 3 were attributed to failure of the shunt. Two patients died with definite staphylococcus septicemia. At least four other patients died with infectious illnesses, such as pyelonephritis, pneumonia and meningitis. In some cases the infection was probably attributable to the presence of meningomyelocele. However, in some cases it seemed certain that the venous shunt was responsible for the infection, especially in cases of septicemia. The causes of death in the 37 fatalities in the control group include shunt failure, electrolyte imbalance, meningitis, and other infections.

Require Additional Surgery

During the three year follow-up period, one-half of the patients in the ventriculo-jugular shunt series required additional operations for revision of malfunctioning shunts. In those requiring revisions, multiple operations were the rule, the average being two secondary operations, the range being from one to six. In some instances the ventricular catheter became blocked by adhesions, chorioid plexus or blood clot. In only one case did the valve itself become plugged by a piece of fibrinous material. In no case was shunt failure attributable to mechanical imperfection of the Holter valve. Defects at the ventricular end of the shunt were usually rather simple to remedy.

The most common cause of revision of the ventriculo-jugular shunt was occlusion of the jugular catheter. This was usually due to formation of a fibrous tissue membrane about the end of the venous catheter. At the secondary operation, a new tube can sometimes be pushed through the stenotic or occluded portion of the superior vena cava. When this was not possible, the operator could sometimes cannulate the external jugular vein, passing the catheter on into the superior vena cava.

In five cases, occlusion of the superior vena cava thwarted efforts at cannulation via cervical veins, and so thoracotomy was done and the distal end of the shunt inserted directly into the right auricle. This was obviously a last resort, and three of these patients have died. However, two of them have had persistent relief of hydrocephalus two and three years respectively following the ventriculo-atrial shunt via thoracotomy.

Efforts to revise shunt failures have given good results in many cases. Nine out of the 21 three-year survivors in the ventriculo-jugular shunt group have needed revisions.

In five patients, failure of the ventriculo-jugular shunt ultimately led to its abandonment and substitution of shunt to another body cavity. Only one of these patients survived long enough to be included in the group surviving three years past the ventriculo-jugular shunt. That patient was blind and had a poor prognosis owing to a bout of staphylococcic ventriculitis when last heard of.

No Symptoms After Removal

One patient developed infection in the subcutaneous tissue about the shunt tubing, and so the shunt was removed two years after it had been installed. That child remains well, intelligent and free of signs of hydrocephalus 16 months after removal of the ventriculo-jugular shunt. Such a case naturally suggests that in some of the three year survivors, the ventriculo-jugular shunt may no longer be necessary to prevent hydrocephalus.

The "success rate" of ventriculo-jugular shunt in this series is 58% if one subtracts from the 21 patients surviving three years post-operatively, one patient who now lives without any shunt and another whose fluid

is now shunted into the gall bladder. The 58% "success rate" is further diminished if one insists on more than simply a live patient as a "success." In all of these survivors success has been achieved if measurements of head circumference are used as a criterion. The rapid growth of the head has been arrested in all cases. However, normal functional development of the brain is the goal which the neurological surgeon must seek in the treatment of hydrocephalus.

The patients reported here are too young for accurate evaluation of mental development, and none has been attempted. The age at which the patient began to talk was selected as a crude index of mental development. On this basis 14 (⅔) of the 21 patients surviving three years after ventriculo-jugular shunt seemed to have some indication of good mental development in that they began to talk by age two years. Of the other survivors, one talked at age 31 months and the other at 34 months. Two are over three years of age and are not talking and three others are so obviously retarded that they have been committed to a state institution. Considering only the 14 patients who talked by age two years as successes, gives us a "success rate" of ventriculo-jugular shunt of 42%. Subtraction of the two patients who no longer depend on their ventriculo-jugular shunt gives a "success rate" of 36%. However, one can easily argue that these two patients were tided over a critical period of hydrocephalus by means of the shunt (Figure 4).

In the control group of 46 patients undergoing other types of shunt only five survived three years with apparently adequate mental development (as judged by ability to talk). This gives a "success rate" in the control group of only about 11%.

MENTAL STATUS OF 21 PATIENTS SURVIVING V-J SHUNT 36 MONTHS

14	TALKED BY AGE 24 MONTHS
1	TALKED AT AGE 31 MONTHS
1	TALKED AT AGE 34 MONTHS
5	NOT TALKING AND OBVIOUSLY RETARDED

FIGURE 4

Summary and Conclusions

Comparison of a group of 33 patients with infantile hydrocephalus treated by ventriculo-jugular shunt with a group treated by other types of shunt showed a 70% three-year survival rate in the former group as compared to an 18% survival rate in the latter group. The percentage of patients surviving with good mental development also appeared to be significantly higher in the group undergoing ventriculo-jugular shunt. Secondary operations to revise malfunctioning shunts were necessary in one-half of the patients having ventriculo-jugular shunt, and in many cases these revisions were successful in continuing the alleviation of hydrocephalus. No failures were attributable to mechanical imperfection of the Holter valve.

ACKNOWLEDGMENT

The author wishes to thank Dr. Som Nayyar for his kind and valuable assistance in compiling data for this study.

REFERENCES

1. Nulsen, F. E., Spitz, E. B.: Treatment of hydrocephalus by direct shunt from ventricle to jugular vein. *S. Forum* 2:399-403, 1952.
2. Carrington, K. W.: Ventriculo-venous shunt using the Holter valve as a treatment of hydrocephalus. *J. Mich. State Med. Soc.* 58:373-376 & 383, March, 1959. ◄

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Treatment of (Eczematous) Hand Eruptions With Cetab (A Quaternary Ammonium Compound: Cetyltrimethylammonium Bromide)

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THE POWERFUL antimicrobial action of certain quaternary compounds suggests that they might be useful for topical treatment in those dermatological conditions caused or complicated by bacterial infection. Specific antibacterial activity, even in high dilution, has been found in those quaternary ammonium compounds containing aromatic or alkyl-phenyl radicals, aliphatic radicals or heterocyclic nitrogen. These compounds act antibacterially as cationic detergents and due to their hydrophilic-hydrophobic structure they exhibit remarkable surface activity making them good wetting and detergent agents.

Two separate actions appear to be involved in their bactericidal effect: (1) inhibition of bacterial metabolism and (2) cytolytic changes. This action is thought to be due to the combination of the cation of the quaternary compound with an essential anion in the bacterium forming a non-ionized complex. It is possible that these vital anions may be a nucleic acid complex. The speed of the action is probably enhanced by the hydrophilic - hydrophobic properties which promote high tissue penetrating capacity.[1]

Their clinical usefulness in the past has been principally in the field of surgery: cold sterilization;[2] and treatment of burns and minor infections.[3] Recently a group of investigators have reported satisfactory results with one of the quaternary compounds in pyodermas,[4] eczematous dermatoses of various types,[5] common dermatoses[6] and superficial infection found in dermatologic practice[7] and in various pyogenic and eczematous dermatological conditions encountered in pediatric practice.[8]

The purpose of this investigation was to study the antimicrobial activity; the anti-inflammatory and antieczematous action of the quaternary compound cetyltrimethylammonium bromide (CETAB) on various dermatoses involving the hands. Eczematous eruptions of the hands include most of the common dermatoses encountered in a general dermatologic practice.[9] These eruptions not only affect the health of the patient but frequently present almost insoluble social and economic problems. This condition does not represent a single dermatological entity but covers a number of diseases due to numerous etiological factors. Frequently, even in a simple case, the clinico-pathological picture cannot be attributed to a single factor but is often complicated by a combination of secondary irritating and predisposing agents.

Materials and Methods

The formula for the topical medication used in this investigation was composed of the quaternary compound, cetyltrimethylammonium bromide[10]* incorporated in an oil/water emulsion base containing an aromatic mix of chlorothymol, menthol and

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* Formula: $C_{16}H_{33}\text{-}N(CH_3)_3\text{-}Br$ Cetyltrimethylammonium Bromide 0.25% Concentration

camphor.** The formula was used on 100 patients who were observed at the dermatology clinic of a large county hospital over a period of 6 months. These patients were divided into two groups of 50 subjects each. Group I consisted of patients with normal skin or "chapped" hands and were studied to determine the incidence of primary irritation or allergic reactions. Group II consisted of 50 subjects presenting various eruptions of the hands, mostly of the eczematous type, and were studied to determine the therapeutic index of the material under investigation.

Determining Sensitizing and Primary Irritant Indices of Formula

Group I: In order to determine the incidence of allergic reactions or primary irritations, the topical medication was applied twice daily to the dorsal surface of the hands of 50 patients whose skin was either normal or who presented a mild dry scaly eruption compatible with the diagnosis of "chapped hands." Since seven patients were lost from the study, the total number of subjects investigated in this series consisted of 43 female subjects of the white and Negro (light color) race. Their ages ranged from 17 to 63 years and they were observed over a period varying from two to six weeks.

This formula failed to produce a single erythematous reaction or allergic dermatitis in any subject studied over a period of six weeks. Interestingly, three of the subjects tested gave a positive history of allergy. Case No. 12 had a previous history of allergic contact dermatitis; case No. 26 was subject to attacks of urticaria over the past several years, and case No. 34 had atopic dermatitis during early childhood.

Four patients, however, developed symptomatic reactions. These complaints, consisting of pruritis and burning, were of a mild degree, occurred at the time of application and were transient, disappearing within 30 to 60 seconds. Since in each case the symptoms occurred only in those subjects presenting mild erythematous scaly dermatitis ("chapping") of the hands, it was our impression that the symptomatic complaints were produced by the aromatic mix present in the formula.

Provocative patch testing was performed on 10 of our subjects. The test was performed by applying the material to the anterior surface of the forearm for 48 hours by the standard closed patch technic. The test then was repeated in the same area one week later.

The tenth subject tested (case No. 24, a Negro female) developed a 4-plus reaction following the challenging test. This reaction consisted of a severe acute dermatitis in which the ostia of the eccrine sweat glands appeared distended and filled with clear fluid. Clinically the eruption appeared more compatible with the entity miliaria crystallina than with the morphology usually associated with allergic dermatitis. Therefore, a biopsy was performed on the lesion and the histological examination showed an acute inflammatory reaction and marked edema about the eccrine sweat ducts rather than the expected epidermal vesiculation, diffuse edema, vascular dilatation and cellular infiltrate of the dermis associated with eczematous allergic reactions. In addition, the cells of the lumen of the ducts appeared markedly swollen and the duct itself obstructed with many cellular casts. The general histological picture was suggestive of a similar reaction reported by Sulzberger, Zak and Hermann[11] in their study on the action of aluminum chloride on the ducts of the eccrine and apocrine sweat glands. Thus, it would appear that the reaction obtained in this test was of an anhidrotic type rather than a true allergic eczematous reaction.

Therapeutic Results

Group II: This clinical investigation is based on the study of 50 subjects, selected at random from the outpatient service of a dermatology clinic. All of the subjects studied presented a dermatological condition of the hands. No attempt was made prior to treatment to classify the cases into primary or secondary types. The majority of the cases, however, presented eczematous

** Furnished as BACTINE CREAM® by Dr. Dorothy L. Carter, Research and Medical Director, Miles Products, Division of Miles Laboratories, Inc., Elkhart, Indiana.

RESULTS* OF THERAPY
HAND ERUPTIONS

Diagnosis	No. Cases	Excellent	Good	Fair	No Change
Inf. Eczem. Derm.	21	9	8	4	
Contact Derm.	11	4	5	1	1
Dishidrosis	4	1		1	2
Atopic Derm.	2			2	
Dermatophytid	2		1	1	
Pustular Psoriasis	2		1		1
Pyoderma	2		2		
Lichen Simplex Chr.	1			1	
Miscellaneous					
Senile Pruritis (hands)	2	1			1
Ichthyosis (hands)	1	1			
Paronychia (monilia)	2		1		1
TOTAL	50	16	18	10	6

GRADING
*CRITERIA FOR RESULTS:
75%-100%—Excellent
50%- 70%—Good
25%- 40%—Fair
0 - 20%—No Change

TABLE I

type eruptions complicated in most instances by secondary bacterial infections.

Of the 50 subjects studied: 14 were white patients (5 male and 9 female), and 36 were Negro patients (9 male and 27 female). Their ages ranged from 21 to 81 years. Eleven dermatological conditions of the hands were encountered in the following frequency: (Table I) infectious eczematoid dermatitis (21 cases), contact dermatitis (11 cases), dishidrosis (4 cases), atopic dermatitis (2 cases), dermatophytid (2 cases), senile pruritis (2 cases), monialisis (2 cases), pustular psoriasis (2 cases), pyoderma (2 cases), lichen simplex chronicus (1 case) and icthyosis (1 case).

As a rule, the medication was applied twice daily; however in some cases it was increased to three or four times a day. Treatment was continued for two weeks in most instances and six weeks was the longest period of therapy. Although a few cases were treated shortly after the onset of the eruption the majority of the cases were chronic and were present from one month to four years.

Of the 21 patients treated for infectious eczematoid dermatitis, the majority appeared to be initiated by contact with detergents, and therefore could be classified as "housewives' eczema." In several cases the predisposing factor appeared to be a contact dermatitis complicated by secondary infection and some eruptions appeared to be true cases of nummular eczema. In this group, nine cases (43%) obtained excellent results, 8 subjects (33%) obtained good results and four patients (19%) obtained fair results. Thus, 76% of the patients obtained satisfactory results (excellent to good) while 25% of the cases obtained only partial relief.

Eleven patients were treated for contact dermatitis, six cases were classified as acute dermatitis and five cases as chronic dermatitis. Although no attempt was made to differentiate between primary irritant or allergic contact dermatitis for purposes of treatment, the majority of cases were classified as occupational allergic contact dermatitis. A few cases were obviously "over-treatment dermatitis" and in some it was evident their eruption was due to primary irritants (gasoline and turpentine). The result of treatments in the six acute cases revealed two patients obtained excellent results and four patients obtained good results. The response of the five patients with chronic dermatitis revealed that two patients obtained excellent results; one patient good results; one patient fair results and one patient failed to respond to treatment. Combining the results of both types, nine cases (82%) obtained satisfactory results while 18% obtained only partial relief.

In the four cases of dishidrotic dermatoses studied, the eruption involved either the lateral aspects of the fingers, the palms, or both. All the cases presented concomittant hyperhidrosis and were complicated by eczematous changes and secondary infection. One case obtained an excellent result in controlling the secondary infection and eczematous changes; one case showed only fair improvement and two cases failed to obtain any benefit. As expected, the primary vesicular lesions were not influenced by treatment.

The results of treatment in those cases caused by bacterial and monilial infections were satisfactory. The two cases of pyo-

dermas of the hands presented moderate improvement at the end of the first week and complete resolution at the end of the second and third week, respectively. Of the two patients presenting monilial infections, the one involving the periungual area showed a good response while the other case involving the intertriginous area (diabetic patient) failed to respond to therapy.

The remaining group, which were complicated either by eczematous changes or secondary infection, presented the following results.

Atopic Dermatitis: Two cases were treated with fair improvement of the complicating secondary infection. One case reported considerable relief from the associated pruritis. No improvement was noted in the primary eczematous dermatitis.

Dermatophytid: The two cases treated were complicated by secondary infection. Treatment produced moderate improvement of the secondary infection in one case and fair improvement in the other. No improvement of the primary vesicular dermatitis was noted. Ordinarily, the proper dermatological therapy for these cases would be wet packs.

Pustular Psoriasis: The two cases treated were complicated by secondary eczematous changes. Treatment resulted in moderate improvement in the superimposed eczematous changes in one case and no improvement in the other. The typical intraepidermal pustules characteristic of this condition were not influenced by medication.

Lichen Simplex Chronicus: Only one case was observed in this series and it responded only slightly to treatment due to the extensive lichenification of the lesion. The patient, however, did obtain considerable relief from the persistent itching usually associated with this cutaneous disease.

Miscellaneous Group: Two cases of senile pruritis and one case of icthyosis associated with marked itching were included in the study in order to determine the antipruritic properties of this formula. Excellent relief from itching was obtained in one case of senile pruritis and in the one case of icthyosis. One case of senile pruritis failed to respond to treatment.

Comment

Purely on theoretical grounds, one could anticipate better therapeutic results in the group presenting primary eczematous hand eruptions and poor results in the group presenting eruptions of the secondary type. Obviously, the cure in the latter group depends primarily on the removal of underlying causes, rather than the topical therapy.

An analysis of this investigation indicates that, in general, the results followed this pattern. In those subjects presenting primary eczematous eruptions of the hands, i.e., infectious eczematoid dermatitis, contact dermatitis, lichen simplex chronicus, including pyodermas, pustular psoriasis and the miscellaneous group, senile pruritis, ichthyosis and monilial infection, 16 patients obtained excellent results, 16 good results, 5 fair results and 4 no benefit. While those patients presenting secondary type eruptions, i.e., atopic dermatitis, dishidrosis and dermatophytids, only one subject obtained an excellent result, one a good result, 2 only fair results, while 4 subjects failed to obtain any therapeutic benefit.

A summary of the above data revealed that the 76% of the patients treated with this medication for primary hand eruptions obtained satisfactory (excellent to good) results while only 28% of the patients treated for hand eruptions caused either by underlying systemic conditions or foci of infection obtained satisfactory results. Since this formula appears to be three times more effective in the treatment of primary hand dermatoses, its principle usefulness will be limited to this area.

The antipruritic action of this formula, which in all probability is due to the aromatic mix, appears very satisfactory. Of the entire series (50 subjects) 20 patients indicated they obtained marked relief from itching; 15 patients indicated moderate relief; 8 subjects reported partial relief; 7 patients reported they failed to obtain any relief.

Reactions

There was no clinical evidence of primary irritation or allergic reaction noted in any of the cases treated. Two patients, however, complained of slight burning im-

mediately after the medication was applied. This sensation persisted for approximately 60 seconds and then both patients obtained marked relief from the associated pruritis. Follow-up examination of these cases for seven days and 62 days respectively failed to reveal any evidence of delayed reaction.

Summary

Failure to elicit a single primary irritant or allergic reaction in the group studied for sensitivity or in the group investigated for therapy indicates that this formula has an extremely low sensitizing index.

The 4-plus reaction produced by the provocative patch test, based on histological findings, appears to be an anhidrotic type reaction rather than an allergic eczematous reaction.

Satisfactory therapeutic results (76%) were obtained in the treatment of primary eczematous eruptions of the hands.

The formula has good antipruritic activity—86% of the patients treated obtained either complete or partial relief from pruritis associated with their cutaneous eruptions.

The small number of cases studied in this therapeutic series (50 subjects) suggests that this report should be classified as a preliminary investigation.

BIBLIOGRAPHY

1. Swan, H., Gonzales, R. I., Harris, A., Caulson, C., Hapwood, M. L.: Use of Quaternary Compounds for Surgical Scrub. *Am. J. Surg.* 77:24-37, 1949.
2. Lawrence, C. A.: *In Antiseptics, Disinfectants, Fungicides and Chemical and Physical Sterilization.* Ed. Reddish, G. F., 2nd Ed. 581, 1957, London.
3. Bowen, O. R., Stine, M. E., Walters C. E.: Successful Management of Burn Case Involving 45% of Body Surface. *J. Ind. State Med. A.* Sept., 972-975 1955.
4. Robinson, R. C. V., Harmon, L. E.: Local Application of Triclobisonium Chloride in the Treatment of Pyogenic Dermatoses. *Antibiotics Ann.* 113:1958-59, 1959.
5. Bluefarb, S. M.: Evaluation of Triburon Alone and With Hydrocortisone for Topic Therapy of Dermatoses. *Ann. N. Y. Acad. of Sc.* 82:119-123, 1959.
6. Becker, F. T., Tuura, J. L.: Evaluation of a New Topical Microbicide in Dermatological Practice. *Am. N. Y. Acad. Sc.* 82:131-134, 1959.
7. Williams, Paul L.: Triburon in Dermatologic Practice. *Ann. N. Y. Acad. of Sc.* 82:135-139, 1959.
8. Bielinski, S., Fox, A. B., Falk, A. B.: The Use of Triclobisonium Chloride (Triburon) in Pediatric Practice. *Ann. N. Y. Acad. of Sc.* 82:141-144, 1959.
9. Sulzberger, M. B., Baer, R. L.: *Year Book of Dermat. & Syph.* Yearbook Publishers, Chicago, Ill. 7-43, 1948.
10. Cetyltrimethylammonium Bromide:
    (a) Hoogerheide, J. C.: The Germicidal Properties of Certain Quaternary Ammonium Salts with Special Reference to Cetyltrimethylammonium Bromide. *J. Bact.* 49:277-289, 1945.
    (b) Barnes, J. M.: CETAB: A New Disinfectant and Cleaning Agent. *Lancet* 242:531-532, 1942.
    (c) Forman, L.: Cetavlon and Skin Infections. *Lancet*, 245:174, 1943.
    (d) Toomey, J. A., Takacs, W. S.: Effect of Cationic Detergents in Cotton Rats: Neutralizing Effect of Cetamium Against Poliomyelitis Virus. *Arch. Pediat.* 62: 337-339, 1945.
11. Sulzberger, M. B., Zak, F. G., Hermann, F.: Studies of Sweating II on the Mechanism of Action of Local Antiperspirants. *Arch. of Dermat. & Syph.* 60:904-18, 1949. ◄

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Cryptococcosis: Apparent Cure by Use of Amphotericin B.

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CRYPTOCOCCOSIS NEOFORMANS is not a common cause of disease in man; however, the chronicity of cryptococcosis and its frequent crippling sequelae make the disease important. Early recognition and treatment will reduce local tissue destruction and will prevent some of the disability to the patient after the active infection has been controlled. Early treatment is especially necessary in cases involving the central nervous system if permanent brain damage is to be avoided. In this respect the disease is analogous to tuberculous meningo-encephalitis.

The organism has a propensity to invade the central nervous system probably spreading from its invasion site via the blood stream. Some investigators have said that the lungs are the commonest points of primary infection much the same as in coccidiomycosis and histoplasmosis. Often the host is in a debilitated state from a prior neoplastic or metabolic disease such as diabetes mellitus. A few cases have been reported in association with sarcoidosis;[8] however, it is a mistake to consider that all cases occur under these conditions since this organism often affects otherwise healthy individuals of all age groups.

Intravenous Amphotericin B is the treatment of choice. Prior to the discovery of Amphotericin B, treatment had been ineffective, with most of the cases ending in death after varying periods of chronic illness.

It would be of value to report a single case of meningo-encephalitis and pulmonary infiltration due to C. neoformans in which intravenous Amphotericin B apparently was responsible for a cure of the disease.

Case Report

A 58-year-old male had had an abdominoperineal resection for a rectal adenocarcinoma in early January 1959. He withstood surgery well but in the latter part of January while still in the hospital he became ill with an upper respiratory infection complicated by bronchitis which was treated by his surgeon with erythromycin. He seemed to improve and was released to his home the first week in February 1959. At this time he began to have headaches of a generalized nature. These were severe but they did not prevent his returning to work as a bank executive on March 1, 1959. The headaches continued and increased in severity and frequency. He now described them as band-like extending from occiput to forehead. This was his principal complaint when he came to my office on April 2, 1959.

The deep reflexes were all present and equal in reaction. The optic fundi and discs were normal. No rales or other abnormalities were found in the chest but an x-ray (see Figure 2) showed an infiltrative lesion in the right upper lobe. A colostomy was noted. There were no mental abnormalities found.

He was admitted to a hospital April 4, 1959 with a probable diagnosis of metastatic brain disease or tuberculous meningoencephalitis. A spinal puncture showed the fluid to be clear. The opening pressure was 20 cm. water; total protein was 80 mg%, glucose was 22 mg%, and the cells were 500 WBC, and 22 RBC. No organisms were seen on smear nor by direct examination. Pellicle formation was not present. Cultures for acid fast organisms and for fungi were started.

Spinal tap was repeated because of the

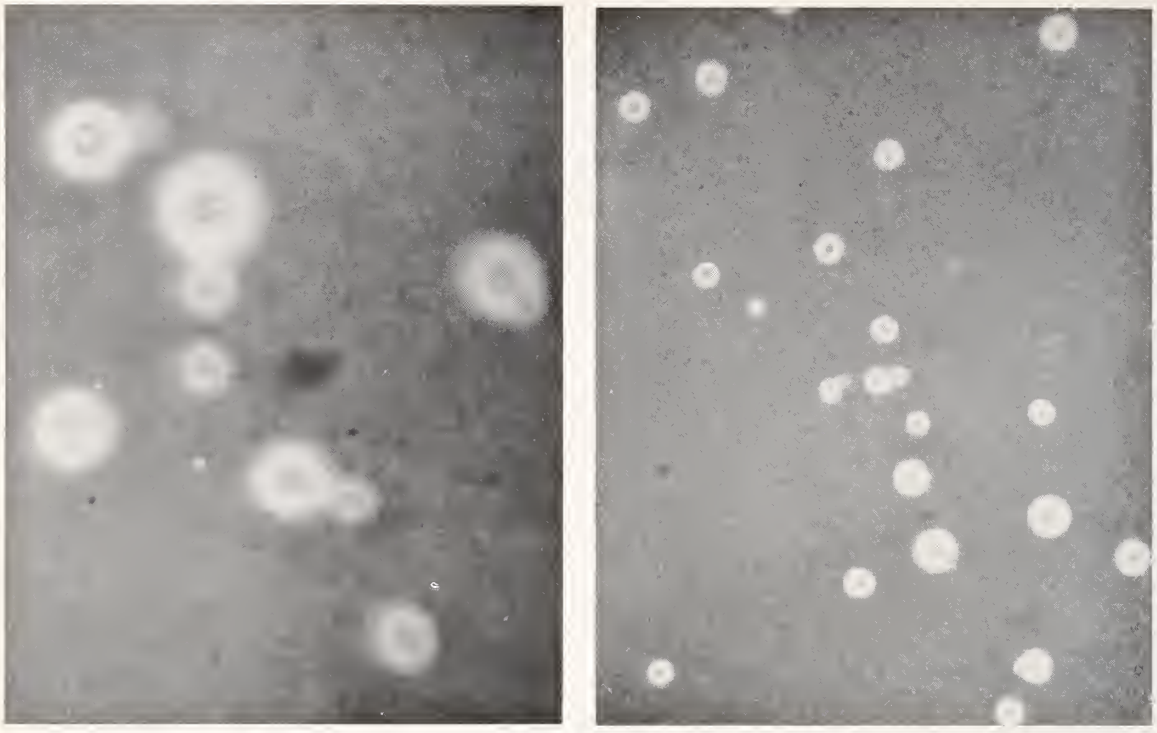


Figure 1

MICROSCOPIC view of C. neoformans in India Ink preparation on 4-13-59. Budding forms seen.

report of finding red blood cells and for further studies since the patient had not improved. The results of the second tap were about as on the first. Streptomycin and isonicotinic acid were begun and the patient was transferred to the contagion floor of the Methodist Hospital, Indianapolis, on April 12, 1959.

A third spinal puncture revealed the fluid to be opalescent and to have an opening pressure of 45 cm. of water. Torula organisms were seen in large numbers in an India ink preparation (Figure 1).

Amphotericin B was started intravenously. After a few days antituberculous therapy was stopped since no acid fast organisms had been seen, and because Cryptococcosis neoformans was present it was considered to be most probably the causative organism of the patient's disease. It was thought at the time that the reports saying that red blood cells were seen in the spinal fluid were in error and that in reality the technician was seeing torula cells and had reported them as red cells.

Hospital Course

Headaches continued and were accompanied by nausea and vomiting. The patient became confused and hallucinatory over long periods of time, but these periods were often followed by remarkably clear mental states of variable duration. Extreme restlessness made his care difficult and 24-hour private nursing care was instituted. After the first week of treatment a mild bilateral papilledema was noted but there was more involvement on the left. Nuchal rigidity was present intermittently and a questionable Babinski was seen on the left foot.

His condition was critical on his first admission to the hospital April 4, 1959 and remained so for at least five weeks. He lost weight from an admitting weight of 130 lbs. down to 95 lbs. Gross hematuria occurred and for a time caused concern because of the possibility of a toxic nephropathy from his disease or from the treatment. The rise in the BUN added some weight to this possibility; however, it was concluded that trauma due to an indwelling urethral catheter caused the bleeding. A more serious complication was noted in the onset of loss of visual acuity and in disturbances resembling hemianopia but not affecting any one sector of the visual fields consistently. The presence of hallucinations made exact eval-

uation of these complaints difficult. The papilledema seen early in the disease did not persist more than 48 hours after the beginning of treatment with Amphotericin B. By the latter part of May 1959 it was apparent that an optic neuritis was the cause for his marked impairment of vision. A year after the onset of his disease and six months or more after the last of his treatment examination of the optic fundi revealed bilateral optic atrophy. His blindness was permanent. A lumbar puncture on August 4, 1959 showed the pressure and fluid to be normal. There was at that time an unfortunate recurrence of the malignancy in the pelvis and a biopsy of a perineal nodule showed adenocarcinoma to be present there.

Therapy

The intravenous route was used in administering Amphotericin B to this patient. One infusion was given each day through a pediatric scalp vein set which provided freedom of movement to the part receiving the small bore (26 cal) needle. This size needle allowed good control of flow. Heparin sodium (50 mg) was added to each infusion to prevent plugging of the small needle and to prevent local thrombosis. The starting dose of Amphotericin B was 15 mg dissolved in 500 cc 5% glucose in distilled water. Subsequent doses varied between 15 mg and 50 mg each day. Four to six hours were taken to run in the solution.

On the fifth day of treatment he experienced a severe acute reaction which began one hour after starting the drug. The reaction began with a chill and a mild degree of generalized cyanosis. The pulse speeded up and the blood pressure rose from a normal level to 200/58-0. He complained also of frontal headache and pain in the upper back and neck. Mental confusion increased during the episode. After 30 minutes the infusion was again started, but was stopped because the patient complained of respiratory distress. There were no rales in the chest nor other signs of an objective nature. The BUN was 43 mg% at that time. Treatment with Amphotericin was interrupted for three days. When it was resumed the dose given was lower and was given on alternate days.

There was no recurrence of this type reaction but the BUN rose at times and it was thought that headaches and mental confusion were exacerbated during the giving of the drug. In the later stages of his therapy when his general condition had improved and the infection seemed under control a severe secondary anemia occurred causing final discontinuance of the drug on June 29, 1959.

A total of 995 mgs Amphotericin B was used. Cultures for torula were negative two days after the beginning of therapy although the organisms were seen in the spinal fluid until May 2, 1959. The decision to stop the drug was based on the fact that no organisms were seen in the spinal fluid on May 25, and on June 8, 1959; also at this time the patient was troubled by a severe peripheral neuritis of the sacral nerves in both legs. This and the optic neuritis were considered as possible toxic effects of the drug, and hence were also factors used in deciding to stop therapy. The patient was released from the hospital on July 31, 1959. There has been no recurrence of cryptococcosis.

Discussion

The diagnosis (Figure 1) of this disease depends on morphological recognition of C. neoformans in infected body fluids or tissues or by cultures of infected material from these sources. There are no satisfactory serological tests available and skin tests are unreliable.[3] Some investigators have felt that the disease may be common in a milder form in much the same fashion as in other fungal diseases such as histoplasmosis and coccidiomycosis. Each of the latter are known to exist in high incidence as unrecognized clinical or subclinical infections. A reliable test for cryptococcosis would help prove or disprove such a possibility. Body fluids used as antigens may offer help in development of a serological test in C. neoformans disease.[3, 4, 5] A respiratory infection, as in this case, seems to precede the more dramatic recognizable forms of the disease. (Figure 2)

Meningo-encephalitis due to this organism is clinically similar to central nervous system disease caused by other fungi and by the tubercle bacillus. Acute meningitis is

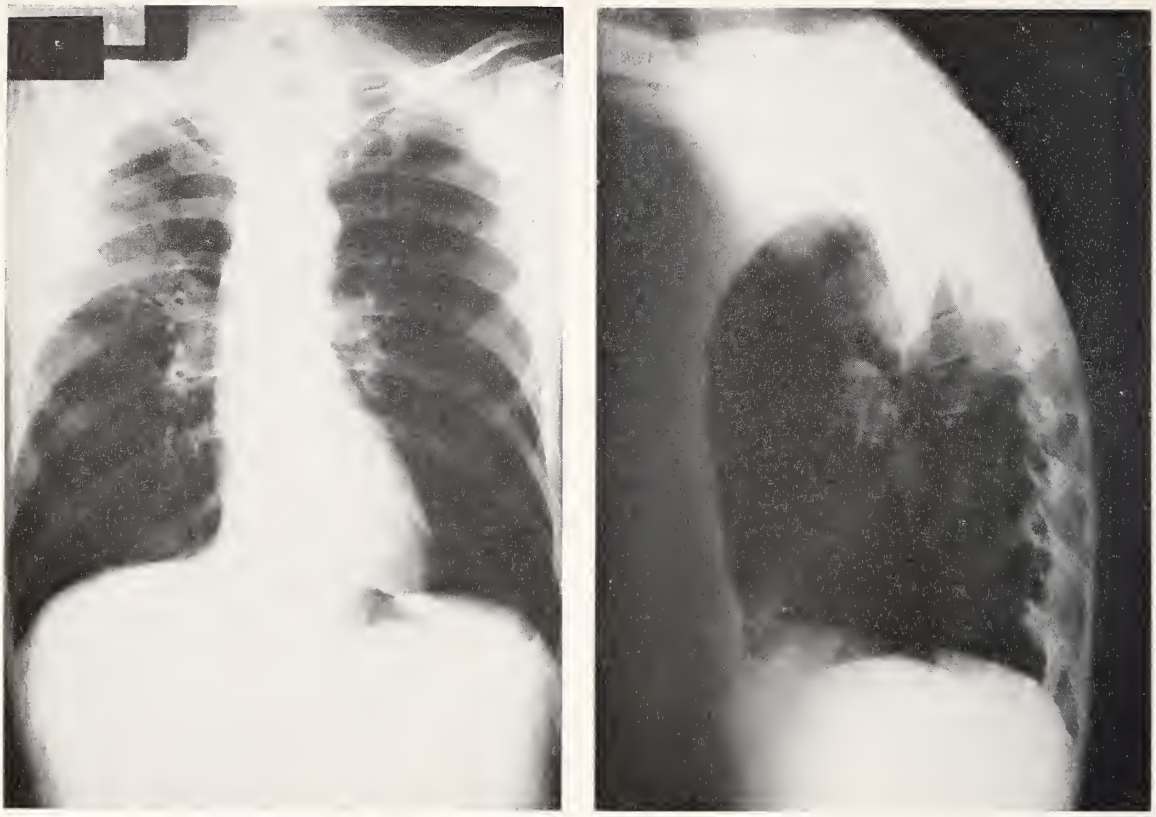
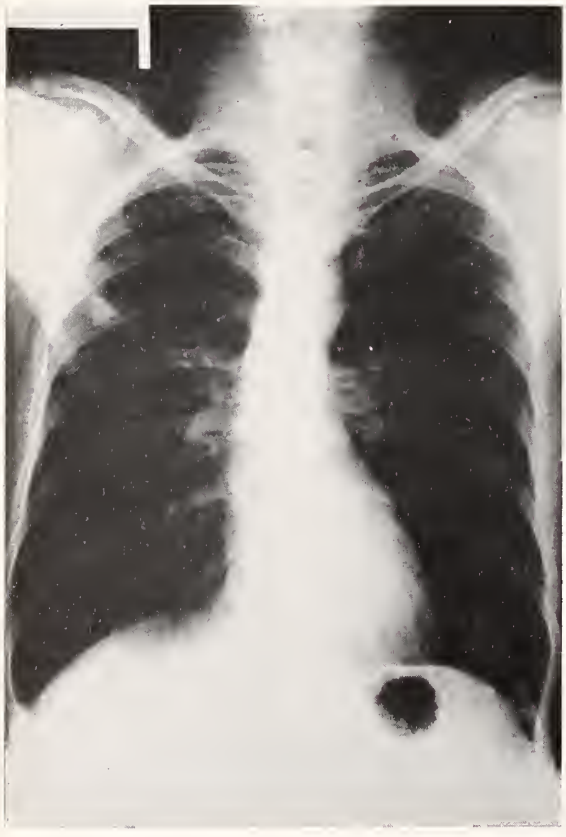


Figure 2
X-RAYS SHOWING infiltrating disease in right upper lobe, 4-10-59.



not common. Early recognition and treatment are important if massive brain damage is to be avoided. Any organ or organ system can be invaded by C. neoformans including the myocardium. Pathogenesis in cryptococcosis is not clear. The disease often appears in association with Hodgkin's disease and with other neoplastic conditions such as multiple myeloma and leukemia. There is evidence that the respiratory tract may be the most common primary site of infection. In the case under discussion the right upper lobe was involved but at the same time the central nervous system was already infected so that one could assume both areas having been seeded from a common port of entry possibly from the bowel at time of surgery. It is true that early in the course of this case there had been a bronchitis so that one may say that the original site of infection may have been lung. On April 2, 1959 a pulmonary infil-

Figure 3
X-RAY SHOWING resolution of disease in right upper lobe, 8-7-59.

SPINAL FLUID EXAMINATIONS

DATE	WBC PER CU/MM	RBI PER CU/MM	PRESSURE MMHOH	C. NEO-FORMANS	PROTEIN MG%	SUGAR MG%	CULTURE C. NEO-FORMANS	CULTURE AFB & OTHER BACTERIA	REMARKS
4- 4-59	500	22	200	0	80	22	Pos.	Neg.	Clear
4-13-59	1150 Lymphs 85%	1000	450	Many	112	15	Pos.	Neg.	Turbid
4-14-59			400	Many			Neg.	Neg.	Guinea Pig Neg. (Killed 7-14-59)
5- 2-59	64 Lymphs 12%	8	260	Many	82	20	Neg.	Neg.	Transluscent
5-25-59	77 Lymphs 24%	2		None	26	45	Neg.	Neg.	Clear
6- 8-59	24	Rare	330	None	108	45	Neg.	Neg.	Clear
6-18-59	83 Lymphs 94%	0	140	None	92	56	Neg.	Neg.	Clear
7- 7-59	38 Lymphs 54%	0		None	82	58	Neg.	Neg.	Clear
8- 4-59	2	0		None	65	54	Neg.	Neg.	Clear

TABLE I

tration was seen. This lesion gradually cleared on treatment with Amphotericin (Figure 3). Examination of the surgical sections removed at time of surgery failed to reveal presence of the organism.

Steroids and antibiotics used in combination or singly may enhance the growth of fungi as well as of bacteria.[7] Widespread use of antibiotics and steroids may in some measure be responsible for the apparent increased incidence of fungus diseases. Great care should be used when these potent agents are employed. Antibiotics must be employed in a specific fashion whenever possible and steroids should be used with discrimination in order to avoid these complications.

Summary

A case of meningo-encephalitis and pulmonary infiltration due to Cryptococcus neoformans was treated with intravenous Amphotericin B. An apparent cure resulted. Bilateral optic atrophy was a serious complication. It is presumed that his blindness was due to the disease rather than to a toxic effect of Amphotericin B therapy.

REFERENCES

1. Emmons, C. W.: Isolation of Cryptococcus Neoformans From Soil. *J. Bacteriology* 62:685, 1951.
2. Littman, M. L., Schneirson, S. S.: Cryptococcus in Pigeon Excreta in New York City. *Am. J. Hygiene* 69:49, 1959.
3. Salvin, S. B.: Current Concepts of Diagnostic Serology and Hypersensitivity in the Mycoses. *Aj. J. Med.* 17:97, 1959.
4. Neill, J. M. et al.: Capsular Reaction and Soluble Antigens of Torula histolytica and Sporotrichium schenckii. *J. Exper. Med.* 89:93, 1949.
5. Neill, J. M. et al.: A comparison of the Immunogenicity of Weakly Encapsulated Strains of C. neoformans. *J. Bact.* 59:249, 1950.
6. Lombardo, T. A. et al.: Mycotic Endocarditis: Report of a case due to C. Neoformans. *Am. J. Med.* 22:674, 1957.
7. Torack, Richard M.: Fungus Infections Associated With Antibiotic And Steroid Therapy. *Am. J. Med.* 22:872, 1957.
8. Heller, Solomon et al.: A Case of Coexistant Non-Meningitic Cryptococcosis and Boeck's Sarcoid. *Aj. J. Med.* 22:986, 1957. ◄

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The Case of the Rueful Roué, Reluctant Reformee

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THE ONOMATOPOETIC ROLL of these words only affirms Lary Lunt's essential public image: bluntly, he was a lush! A double jigger before breakfast and, ditto, before lunch; twice this at supper to say nothing of the copious "occasional" drinks and that tremendous "night-cap"—the description fitted. Not yet 30, he was already developing more than a hint of rhinophyma, the "whiskey nose" of the bar-room habitué.

Nothing in his background was congruous with the situation. On both sides, his ancestry was Puritan at its most implacable, temperance level. The family was "right side of the tracks" beyond cavil: in fact, it was very probably *the* leading name in town. The Lunts were discreetly wealthy and solidly conservative; all the desirable causes solicited their sponsorship. Their only son, Lary, went to Groton as a matter of course. There were some vague tales of indiscretions but they were more than balanced by his athletic prowess and general charm: with the ladies he was almost irresistible. He went on to Harvard and eventually obtained a degree in law. He did very well in athletics, tennis especially. One of the all time great players had taken him in hand: Lary rocketed up in the select amateur circles as a championship player with unlimited potential. In fact, there were some sotto voce remarks about the endearing admiration of the youth towards the older man but they went no further. There *were* some elevated eyebrows when Lary stopped playing tennis—and being seen with his coach. Still, Lary Lunt joined all the proper clubs; he became a not-so-junior member in the distinguished law firm headed by the senior Lunt.

Inexplicable Drinking

It seemed rather inexplicable that so promising a young man should take up drinking so unrestrainedly and at so early an age. There *were* some ribald tales and other scuttle-butt; however, nothing ever went beyond sly innuendo. Certainly I was unconscious of it as to me the "Lunts" were only a name. I did read about his engagement to the beauteous Kathleen Wint (*any resemblance to any person living or dead strictly coincidental*). I read the personal column now and then but this was front page news all over the country. She was the very quintessence of the ne plus ultra: the mirror in which America beheld feminine perfection. A patient of mine did make a rather wry remark to the effect that Lary was going to take Katy along with him on

gilded skids which led, nevertheless, to the same deadly bottom. However, the words were said without too much conviction; it could have been masculine envy.

The pictures of the young couple were really wonderful. Lary was three inches over six feet and still appeared tremendously attractive, physically speaking. He had the athlete's physique even if an unseemly sag was developing about the middle and all his muscles were flabby pulp. As this was before the TV era, we were spared the late afternoon drunken intonation along with the glazing eyes and shaking hands. . . . Inevitably, I heard tales of the *reasons* for Lary's alcoholism. The families were too prominent not to be discussed: on the record and off. The ribald tongues clucked away, gloating over the anticipated catastrophe; rather snidely, they sympathized with the lovely bride to be who expected to reform the incorrigible reprobate she was to marry.

Abandoned . . . Teetotally

Yet, within the year, Lary had received some medical treatment; he underwent a very serious operation—and he abandoned his bacchanalianism teetotally! The marriage went through as per schedule. Within a decorously proper length of time, Lary became a pater familias. In less than 10 years, he fell into the leadership of the Beacon Hill set sponsoring temperance in its most acerbic form. Today, he is a stern (and feared) judge and a well-known leading public figure. Katy, his still much publicized wife, gets enormous kudos for the miraculous transmogrification effected in her husband. In fact, many grumble and complain: *The Rueful Roué* seems to delight in taking vengeance on others for his own past misdeeds! A mis-spent youth seems to drive the reluctant reformee on the bench into meting out stern sentences with a heavy hand! Why did Kathleen *over-do* her cure?

Well, as the doctor in the case, my lips have been sealed these couple of decades and more. There are still several angles that cannot be divulged even now. However, certain rather interesting aspects have quite a general interest and can be told with injury to no one.

Lary Lunt and his fianceé came to my office about a month after the announcement of their engagement. I had been chosen carefully and their reasons for having selected me were given to me that very first afternoon. I was *not* Society; I knew very few of their personal friends; I definitely did not go to their church. I was a comparatively recent graduate of a reputable medical school at which I had continued to teach. The *brother* of their pastor was the director of the most impeccably "right" hospital in town; Lunt, Sr. was the president of its lay board of trustees. It was the recommendation of this hospital director that decided them to have Lary come and see me.

The unconscious effontery of such patronizing hauteur was more amusing than insulting. Prepared to give the usual premarital advice, I finally got around to asking, "What was it that made you want to see a doctor?"

Lary fidgeted around and even got a bit red in the face; finally, he simply blurted out, "Drinking just makes me frightfully ill; it started out a week or so before the engagement party and it has been increasingly worse since."

"What?"

"Yes!" Even a taste of alcohol—in any form—within fifteen minutes of downing the drink, would begin to produce agonizing pains These excruciating paroxysms would last an hour or more, gripping his chest as if in a vise!

Professor Found Nothing

Yes! He had seen their family physician; he mentioned the very well known chairman of the medical department of one of our great schools. No! He had been examined thoroughly; the professor had found nothing and had so informed Lary. That was a *big* help!

Well! With all gentleness but complete firmness, I had Kathleen ushered out into the waiting room; then I proceeded with a meticulous—and I mean exhaustive—examination of the young man. Inevitably, I kept up with probing questions; very quickly,

the REASONS for the alcoholism came out. Basically, they are not really relevant to the present recital; also, even at this late date, they cannot be detailed.* They are drab enough and all too well known to all of us. Now that he was being compelled to stay sober, overt manic-depressive drives with suicidal (and possibly homicidal) overtones were in grim evidence.

Was the professor aware of Lary Lunt's psychotic background? Well, no! The history had been taken by the eminent medico's young associate who had asked only the routine questions. As to the threatening psychiatric precipice—would Lary consider entering a certain hospital I had in mind? Would it be kept private? Of course! Lary could register under an assumed name—only the Mother Superior would be informed by me and off the record as to his true identity. Would he be permitted visitors? Once a month!

Enter: John Smith Doe

The very next day, John Smith Doe and his doctor drove to the side entrance of St. Mary's Sanatorium. Psychiatric consultation was had with the eminent director of the institution. The sisters were hand-picked for discretion, skill, compassion and understanding. Nevertheless, there were special nurses present for the eight hours succeeding each metrazol shock treatment. It had just been introduced in this country and I had begun dabbling with it. Some of my results were published much later.† By that time, however, the still newer insulin shock and then electroshock modalities had taken over.

In any case, much sordid detail had come to the surface. The tale of childhood psychic trauma on stumbling over a butler and a maid coupling passionately under a stairway. . . . The first seduction by an older boy at school. . . . The murky via dolorosa traversed by Lary Lunt is not our chief concern here. I subjected him to an exhaustive physical and laboratory examination and



all to no avail. *WHY* this amazing reaction to alcoholic ingestion? A puzzled perusal of the then available texts and literature yielded no clews. In baffled bewilderment, I turned to my revered teacher, Dr. Frederick Tice. His clinical acumen and uncanny diagnostic skill were already legendary even during his most active years. The greatest accolade one could get was to have been a resident of his at Cook County Hospital in Chicago. Only the top man of each succeeding group could get *his* service as it was chosen first by the intern lucky enough to have written first place on the competitive exam. . . .

As usual, Dr. Tice was glad to come out on a consultation. As usual, his examination was searching; also, he asked some questions that were new and did not seem to me to have bearing on the problem. Finally, we huddled in front of the x-ray viewbox. The data seemed meager enough. There was the elevated sedimentation rate, the normocytic, normochromic anemia and; well, what else?

Dr. Tice, in his usual, inimitable manner, queried as to whether I had noticed anything when I had palpated the patient's

* Lieberman, A.: The Case of The Comatose Truck Driver, *J.I.S.M.A.* 53:3, p. 460, March, 1960; and The Case of The Four-Sided Triangle, *J.I.S.M.A.* 53:12, p. 2202, Dec., 1960.

† *Geriatrics* March and August, 1954.

abdomen while Lary lay on his back with his hands folded under him at the level of the upper lumbar vertebrae. While repeating this maneuver, did I get a sense of *fullness* in the epigastrium?

"And, *dottor*!" Dr. Tice never said *doctor* —always *dottor*. "Do you notice these lateral and oblique views of the thoracic and lumbar spine that I had asked you to have taken at the time you requested my consultation?"

It happens that I had stumbled over some retroperitoneal sarcomas about this time.‡ But I had to confess that, while I had been taught this particular maneuver by him, my fingertips had not been as sensitive as his and I had not felt anything unusual.

"Well, *dottor*! There is only *one* disease that will give you this unusual symptom and don't ask me why; I don't know. So I am *looking* for nodes: usually, they are cervical, mediastinal or inguinal. This time, I believe, they are retroperitoneal: see here!" Dr. Tice pointed at the films that had been placed in the shadow box. Neither our roentgenologist nor I had drawn the significant conclusion from the string of what seemed to be discrete, retrogastric and retroperitoneal nodules.

Suggests Clean Dissection

"Now, *dottor*! With these shadows *and* the sudden intolerance to alcohol, I would suggest clean dissection and total removal of the entire retroperitoneal mass; I think that the microscope will prove it to be some variant of *Hodgkin's* Disease. I know that the textbooks fail to mention this. I should remedy the situation by inserting a note in my next revision of my *Practice of Medicine*."

My patient's psychic state had improved immeasurably during the month in the sanatorium. He did not *look* ill physically to start with. The flat suggestion for such an extensive laparotomy rather startled me. Coming from anyone but Tice, I would have balked at what had the appearance of a wild adventure. He is the only man I have never observed to have made an unequivocal diagnosis that later turned out to be erroneous.

On Tice's say-so, I went into a huddle with my patient; we discussed the matter with both his parents and with Miss Wint. I pulled no punches; they acceded. First, Lary Lunt came home and permitted himself to be seen around town. Then, he entered our large and best known hospital under his own name. A very famous surgeon, indeed, was asked to come out and conduct the search for the pathology; he was dubious but he came. The operating room crew was on its toes; everything proceeded with deceptive ease and dispatch. Dr. Speed's unerring scalpel never flinched as it peeled the glands off the abdominal aorta (Oh, yes! The glands were there; Dr. Tice was vindicated to the hilt!). The surgical specimen was dropped into formalin and closure was complete before the report on the frozen section came back.

It *was* Hodgkins! The resected glands were discrete with the capsule intact. The cut surfaces were pale grey, homogenous, translucent and moist. Under the microscope, the increase of reticulum was striking and Dorothy Reed cells could be discerned. Our pathologist was inclined to call this a "paragranuloma" or reticular lymphoma. The paraffin sections were to be seen by many eminent pathologists. Dr. Richard Jaffe of Cook County Hospital accepted this finer classification; biopsy snips taken from the spleen and liver failed to show any evidence of secondary involvement. Later on, there was an extensive debate as to whether the lesion was not a "benign lymphoma." I do not pretend to the expertness of making this judgment.

Lary Lunt's post-operative recovery was absolutely uneventful. One very maximal course of irradiation was applied to the area of the excised glands. He needed no other physical treatment; I did suggest a very eminent psychoanalyst in our huge Midwestern metropolis; he went to him twice weekly for several years.

Shortly before his enormously publicized wedding, Lary Lunt went through a most searching examination. His inability to partake of alcohol in any form whatever had persisted. I found nothing at all; he was

‡ Published with Dr. C. O. Almquist in *J.I.S.M.A.* 32:8, 417-419, Aug., 1939.

sent to see Dr. Tice and also the surgeon: both concurred in the clean bill of health. He took a trip to the Lahey clinic; the verdict remained unchanged. I was invited to the reception after the wedding but did not go.

At six-month intervals I continued to observe Lary professionally. Kathleen was referred to the very distinguished professor of obstetrics when such care was indicated.

Then there came World War II; on his record, Lary was rejected. The Lunt clan acquired some large properties in a Mountain State and the young Lunts pulled stakes and settled in a thriving city where they quickly made their mark. There was no one to be aware of Lary's past habits; his name, looks and fortune quickly made him a civic leader.

The disease has remained in complete remission; I get periodic reports—now and then, I see him personally. Which brings me back to the rather interesting fact that Lary Lunt is becoming more and more of a Paul Pry. He is an esteemed—and muchly feared—judge. Why is he so severe on the back-sliders? Cannot he exorcise the Dybbuk of his past? Wherein has the analyst failed? Is Lary still the *Rueful Roué*, the Reluctant Reformee longing for the liquor the Lord is continuing to deny him? His yet beautiful wife was in to see me the other day; we chatted about many things. I am a brazen old man and Dowager Duchesses do not intimidate me, but certain questions I simply could not ask—if I ever work up the courage, I'll let you know. ◄



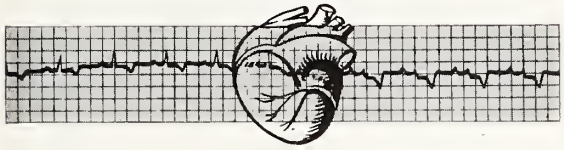
1270 Fifth Avenue
New York 29, N. Y.

Fifty Years Ago

. . . Let me say a word or two about the infections of childhood. I think doctors often are very careless concerning treatment, and especially the after-treatment of cases of measles and scarlet fever, where perhaps they call only once or twice when they ought to see the patient day after day, or at least long enough to insist that the child does not go to school until all danger of a suppurating ear is past. I believe a case of measles or scarlet fever is one of the most dangerous cases as far as the possibility of having ear troubles is concerned, from the fact that it is often thought by the parents not necessary to have the doctor come for these supposedly simple diseases. I believe they should be rigidly quarantined, and that the schools should be kept from infection. I believe it would be well if every child with measles or scarlet fever were kept out of school for at least six weeks.

The ordinary use of the handkerchief by the child is a source of danger by aiding in the spread of infection, and I hope the day will come when the handkerchief will not be used. The Japanese plan of a paper handkerchief which can be burned is a thousand times better. A child with a cold ought to be kept in the home, and placed on a reduced diet with sugars cut out—D. W. Stevenson, M.D., on "Conservation of Hearing," *JISMA*, March, 1912.

Electrocardiogram of the month



Presented as a regular feature of The JOURNAL, Electrocardiogram of the Month is a series of short talks on cardiovascular diagnosis and treatment, edited by the staff of the Robert M. Moore Heart Clinic of the Marion County General Hospital, Indianapolis.

Concealed Conduction

CHARLES FISCH, M.D.*
Indianapolis

THE CONCEPT of concealed conduction, or incomplete penetration of the atrioventricular (AV) node is invaluable in the interpretation of many complex arrhythmias. This phenomenon is manifested in the electrocardiogram by unexpected (1) prolongation of the P-R interval, (2) complete block of an impulse and (3) displacement of a nodal pacemaker. The following case illustrates how concealed conduction of an impulse causes an unexpected delay of transmission of the subsequent impulse.

The electrocardiogram reproduced in Figure 1 (courtesy of Dr. Robert G. Taylor, Fort Wayne) was obtained on a patient with clinical manifestations of Stokes-Adams syndrome. The mechanism responsible for changes in lead I is applicable to leads II and III. Atrial impulse P3 and P7 are conducted with P-R intervals of .16 seconds and their respective R-P intervals are .76 and .84 seconds. P2, P4, P6 and P8 are blocked after R-P intervals of .08, .48, 0.10 and .46 seconds. Their failure of conduct is due to the refractory state of the A-V node. P5 and P9 are conducted after an R-P of 1.20 with a P-R of .52 and .56 respectively. This sudden prolongation of P-R is unexpected in view of normal conduction of P3 and P7. Actually the latter being preceded by a shorter R-P, have more chance to fall within the refractory period and should have a P-R longer than either P5 or P9. This unexpected prolongation can be explained by a deep penetration of P4 and P8 into the node without actually reaching the ventricles and thus setting up a state of refractoriness and prolonging the A-V conduction of succeeding P5 and P9. This partial penetration is supported by the fact that P3 and P7 with a somewhat longer R-P conduct normally.

The concealed conduction of P4 and P8 with sudden prolongation of P5-R and P9-R gives rise to an unusual situation namely a bigeminal rhythm in presence of normal sinus rhythm and a 2:1 block. Furthermore the degree of heart block is not as great as one would be likely to infer at first glance. P2 and P6 are blocked simply because they fall in the absolute refractory phase. P4 and P8 actually penetrate deeply into the node but are blocked at some much lower level.

* From the Robert M. Moore Heart Clinic, Marion County General Hospital and the Department of Medicine, Indiana University School of Medicine.

Supported by the Herman C. Krannert Fund of the Indiana Heart Association and the Indiana State Board of Health, Indianapolis, Indiana.

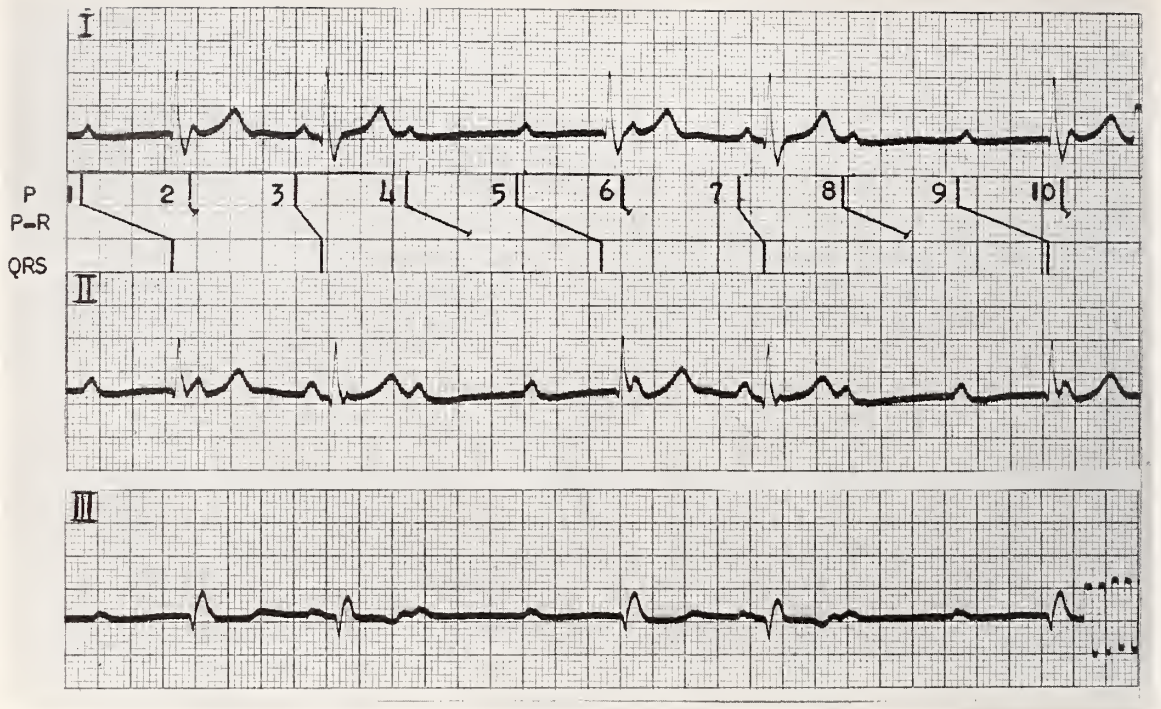


FIGURE 1

THIS FIGURE DEMONSTRATES a 2:1 A-V Block, the diagram beneath Lead I is conventional and is applicable to Leads II and III. For details see text.

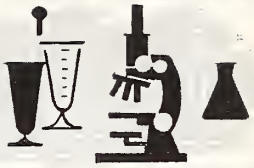
About Our Cover

The old adage tells us that "March comes in like a lion and goes out like a lamb." We cannot vouch for the truth of this superstition, however, we can vouch for the fact that it has been a long cold winter and now the *Journal's* thoughts are turning to spring, with warmer days, crocuses and daffodils blooming in the gardens and a hint of green in the trees.

Our cover can best be diagnosed as the symptom of a mild attack of spring fever, still in the early stages though we hope slightly infectious. The recommended treatment for this ailment is blue skies, a day in the country, and if possible the glimpse of two goats observing the passing patient from their vantage point atop a bale of straw.

We are not kidding when we assure you that although our cover this month is somewhat facetious, the contents of the *Journal* are, as ever, worthy of your serious attention and perusal.

Path-finder
PUBLISHED UNDER THE AUSPICES OF THE INDIANA ASSOCIATION OF PATHOLOGISTS



Part 2, Continued from February:

The Why, When and How of Liver Function Tests

LEON R. BLUM, M.D.
Terre Haute

III. Tests for Severity of Liver Disease (Functional Capacity Tests)

Recommended Tests:

1. Electrophoretic fractionation of serum proteins.
2. Bromsulphalein retention.
3. Transaminases.
4. Total serum bilirubin.

Paper electrophoresis is rapidly becoming a standard procedure in clinical laboratories and will frequently supply useful information pertaining to alterations of alpha$_1$, alpha$_2$, beta, and gamma globulins. The time honored A/G ratio, even when computed without a mathematical error, is hardly of any clinical value.

IV. Tests for Detection of Residual Liver Damage (Prognostic Follow-up Tests)

1. Electrophoretic fractionation of serum proteins.
2. Total serum bilirubin.
3. Transaminases.
4. Urobilinogen in urine.
5. Bromsulphalein excretion.

In this group the flocculation tests (cephalin, thymol, and zinc) are not included because they are too sensitive and may give positive reactions many months following clinical recovery from hepatitis. In such cases, the flocculation tests may reflect an immune state with increase of gamma globulin rather than hepatocellular damage. The transaminases (SGO-T and SGP-T) appear to be of definite value in evaluating recovery from hepatitis. The failure of SGO-T and SGP-T activity to return to the normal range during recovery phase suggests the development of chronic hepatitis and/or posthepatic cirrhosis. Ambulation during recovery sometimes is associated with a slight rise of transaminase, not exceeding 50 units. Since the changes in serum transaminase do not appear to be an index of liver cell function per se, but rather a reaction to acute liver cell injury, the serum transaminase alterations do not necessarily correspond to alterations of conventionally employed liver function cells.

Summary

(Do's and Don't's in Liver Function Tests)

1. Don't order indiscriminately the whole "battery" of available liver function tests.
2. Do keep in mind the four main reasons for doing liver function tests outlined above.
3. Don't order tests without careful history and results of physical examination.
4. Do order tests in selective groups for the specific purpose and keep in mind the five main alterations of bilirubin metabolism which may result in jaundice.
5. Don't expect laboratory tests to be in-

TESTS USEFUL IN THE DIFFERENTIAL DIAGNOSIS OF "MEDICAL" AND "SURGICAL" JAUNDICE

	"MEDICAL" JAUNDICE		"SURGICAL" JAUNDICE	
	Uncomplicated	With intrahepatic obstruction (cholestasis)	Uncomplicated	With superimposed infection (cholangitis)
1. Urobilinogen in urine	Increased (over 1.5 Ehrlich Units per 2 hr spec.)	Decreased	Decreased	Increased
2. Color of feces	Brown	Clay	Clay	Clay
3. Cephalin flocculation test	Strongly Positive (3 to 4+)		Negative (0 to 1+)	
4. Thymol turbidity	Increased (over 6 MacLagan Units)		Normal (0-4 MacLagan Units)	
5. Alkaline phosphatase	Normal or less than 10 Bodansky Units	Slightly increased but less than 15 Bodansky Units	More than 15 Bodansky Units	
6. Transaminases SGO-T SGP-T	Markedly Increased More than 200 Sigma-Frankel Units More than 300 Sigma-Frankel Units		Normal to slightly increased Less than 150 Units Less than 200 Units	
7. Total Cholesterol	Normal (150-280 mg) or decreased		Increased	
8. Cholesterol esters	Markedly Decreased (less than 40%)		Slightly Increased	
9. Electrophoretic fractionation of serum proteins	Gamma globulin: moderately to markedly increased Alpha$_2$ globulin: Normal Albumin: decreased in advanced liver disease		Gamma globulin: Normal Alpha$_2$ globulin: Slightly or moderately increased	

Table I

fallible, particularly, if not correlated with clinical data but do expect maximum aid in the differential diagnosis of jaundice by clinico-pathologic correlation of recommended group tests of the "Liver Profile." ◄

LABORATORY MEDICINE

Published periodically as a review of clinical laboratory procedures suitable for laboratories with minimal equipment.

The Blood Platelet

A. WENDELL MUSSER, M.D.*

THE BLOOD PLATELET was described many years prior to 1882, but it was at this time that Bizzozero demonstrated the adhesive quality of platelets, their participation in the formation of thrombi, and their integral part in the coagulation of blood.

Normal platelets are colorless, refractile, non-nucleated, spherical, oval, or rod-shaped bodies averaging from 2 to 4 microns in diameter. When stained with Wright's stain, azure granules are seen in the cytoplasm. These granules may clump and then give the impression of a nucleus near the center of the platelet. Large platelets can often be seen in the peripheral blood smear, especially during active blood regeneration. Many artificial factors affect platelet morphology in peripheral smears other than the pathophysiologic response of the body; that is, nature of the contacting surface, the properties of the anticoagulant, concentration of the anticoagulant, and thickness of the preparation.

The platelets for many years were thought to have very little intrinsic chemical activity. Today it is known that the platelets are the site of many complex enzymatic metabolic phenomenon. Serotonin (5-hydroxy-tryptamine) is transported in the blood by platelets. The serotonin is probably picked up in the gastrointestinal tract and released into the serum during coagulation by the action of thrombin. Platelets also are capable of binding relatively large quantities of histamine, epinephrine and norepinephrine; however, the exact physiologic significance of these reactions is unknown at this time.

Physically the platelets display three very important properties that have much to do with their function within the body; that is, adhesiveness, aggregation, and agglutination.

In 1906, J. H. Wright concluded that platelets were derived from megakaryocytes and were actually detached portions of the cytoplasm of the megakaryocytes. This is the prevalent idea at this time. Megakaryocytes can gain access to the peripheral blood and are often filtered out in the lungs, but normally megakaryocytes are not seen in peripheral blood smears.

Platelets survive in the blood for approximately ten days and their chief function is within the coagulation system and in gen-

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eral hemostasis of the body as a whole. By their agglutination they aid directly in sealing an injured blood vessel. Some investigators feel that the platelets play a part in the vasoconstrictive response observed when vessels are injured. The platelet factors (approximately nineteen at this time) are involved in the coagulation process. Platelet factor III has a thromboplastic response and probably initiates coagulation at least in the extrinsic or tissue system.

The platelet count is one of the common tests used in investigating a hemorrhagic disorder. Most hemorrhagic disorders related to platelet abnormalities consist of thrombocytopenia, whether they be idiopathic (so called primary) or secondary. Secondary thrombocytopenia may result from drug reactions, infections, collagen diseases, and secondary involvement of the bone marrow by neoplasms, myelofibrosis, osteodystrophies, and reticuloendothelioses. A rather rare form of thrombocytopenia is thrombotic thrombocytopenia. This entity involves the blockade of capillaries and small arterioles by plugs of material which may be platelet thrombi. These events result in multiple small infarcts throughout the body associated with the stigmata of hemorrhagic disorder. There is still much confusion and lack of knowledge concerning the possibility of thromasthenias or thrombocytopathies. Future work will probably allow us to accurately estimate the quality of platelets.

Many renowned hematologists feel that a fairly accurate and reliable estimation of platelet count can be made from the peripheral blood smear. This is probably true if one considers the fact that the only useable information is whether the count is normal, decreased or increased. Many times it is only when the abnormality is extreme that the information can be correlated with clinical findings; therefore, the experienced observer may be able to accurately estimate within visible range the platelet count.

Method

Because platelets agglutinate and adhere to a foreign surface, one must immediately make the dilution with an anticoagulant solution.

A number of methods for platelet counting have been proposed. Dr. John Miale feels that the least reliable methods are those in which platelets are estimated indirectly from supravital preparations; the most reliable one is that using special counting chamber and phase microscopy (Brecker and Cronkite). The next best method is that described below.

Direct Count

Rees-Ecker Diluting Fluid

Sodium citrate	3.8 Gm.
40% formaldehyde	0.2 ml.
Brilliant Cresyl blue	0.1 Gm.
Distilled water to	100.0 ml.

Keep stoppered and in refrigerator. Filter before using.

The finger is punctured and the first drop of blood discarded. Blood is drawn into the red cell pipette to the 0.5 mark and diluting fluid is drawn to the 101 mark for a 1:200 dilution. Collect in duplicate. Shake for 10 minutes. Immediately fill a standard counting chamber as for a red count. Allow the preparation to stand for 10 to 20 minutes. To prevent evaporation the chamber is placed in a covered Petri dish containing a piece of moistened cotton. All platelets are counted in 25 squares of 16 squares each (1 sq. mm—the entire red cell counting area). Use high dry power of the microscope. Collect two blood smears and stain with Wright's stain. Estimate the number of platelets (oil immersion) as a check against the wet count.

Calculation:

Number of platelets counted x 10 x 200 = number of platelets/cu. mm. Since a count is performed from each pipette, the results from each pipette may be added together and multiplied by 1000 to find the number of platelets/cu. mm.

Normal value: 200,000 to 300,000/cu. mm. Much experience is necessary to differentiate platelets from dirt and debris. Platelets are bluish and regular in outline. Contaminated fluids should be discarded and equipment should be kept very clean.

REFERENCES

1. Bizzozero, J.: Ueber einen neuen Form—bestandtheil des Blutes und die Rolle bei der

Thrombose und der Blutgerinnuig. *Virchows Arch. f. path. Anat.* 90:261-332, 1882.

2. Brecker, G., Cronkite, E. P.: Morphology and enumeration of human blood platelets. *Am. J. Clin. Path.* 23:15, 1953.
3. Grette, K.: The release of 5-hydroxy-tryptamine (Serotonin) from blood platelets during coagulation. *Scandinav. J. Clin. and Lab. Invest.* 11:50, 1959.
4. Adelson, E., Rheingold, J. J., Crosby, W. H.: Studies of platelet survival by tagging in vivo with P^{32}. *J. Lab. and Clin. Med.* 50:570-576, 1957.
5. Brecker, G., Schneiderman, M., Cronkite, E. P.: The reproducibility and constancy of the platelet count. *Am. J. Clin. Path.* 23:15, 1953.
6. Tocantins, L. M.: Technical methods for the study of blood platelets. *Arch. Path.* 23:850-879, 1937. ◄

The Journal of the Indiana State Medical Association

MEDICAL ESSAY CONTEST

for

Interns and Residents of Indiana Hospitals

During the intern and resident year of 1961-62 The Journal is sponsoring a medical essay contest open to interns and residents of hospitals in Indiana. The subject matter will be limited to clinical experience observed primarily in the teaching hospital of the author. Presentations may contain up to 4,000 words and preferably should be illustrated with clinical pictures, graphs or tables.

A first prize of $100.00, a second price of $75.00 and a third prize of $50.00 will be awarded. All entries are eligible for consideration for publication in The Journal.

Manuscripts will be judged by a prize award committee selected by the Editorial Board of The Journal and by the Dean, Indiana University School of Medicine.

Manuscripts should be prepared in accordance with the specifications outlined on the masthead page of The Journal.

Entries must be submitted prior to May 1, 1962.

The manuscript itself is to be identified only by the title. The author's name must not appear in the manuscript. Instead, a special title page bearing the title and the author's name and address should accompany the paper. Mail entries to Mr. James A. Waggener, 1021 Hume Mansur Bldg., Indianapolis 4.

The Journal
of the INDIANA STATE MEDICAL ASSOCIATION

Devoted to the interests of the medical profession of Indiana

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New Thinking Among Younger Medics

SELF-EMPLOYED PHYSICIANS in the United States are not covered by Social Security largely because most of them are opposed to it. Opposition has varied according to the section of the country; there are states in which more doctors favor Social Security coverage than are against it.

Opposition has also varied in accordance with the age of individual physicians; the older a worker is when he begins to contribute the greater will be his benefits in relation to his contribution. It is natural that older doctors would be inclined to favor inclusion.

Recently there has occurred an incomprehensible trend among some younger doctors toward favoring Social Security for themselves. This is a most mysterious development, especially when the following statistics are considered:

	At Age 65	At Age 72
If a self-employed physician, now age 32, elected to come under the present Social Security program:		
He would have contributed a total of	$10,421.00	$12,738.00
If this doctor simply saved these contributions at 4% (net after taxes):		
He would have accumulated	21,109.01	30,496.94
If this doctor elects at retirement to receive Social Security benefits:		
He would receive a maximum monthly income for life if single of	127.00	127.00
and if married of	191.00	191.00

If this doctor used *only* the interest on his accumulated savings at 4% (net after taxes):

He would obtain a monthly income for life of about	70.00	100.00

If this doctor were to use his accumulated savings to buy a life annuity (at today's rates) from a life insurance company:

He would obtain a monthly income for life of about	143.00	269.00

If this doctor were to use his Social Security contributions to purchase a deferred life annuity from a life insurance company (at today's rates):

He would obtain a monthly income for life of about	127.00	237.00

The Social Security program in addition to the income payable at age 65 or 72, provides benefits to widows and children up to a maximum of $254.00 for both and $105.00 for a widow. In the event of disablement a family may draw up to $254.00.

It should be noted that all the income from the doctor's own savings as listed at age 65 to 72 would be his to draw regardless of what his other income was, and that in the case of his using only the interest on his savings the entire principle would be left intact.

Poison Prevention Week

MARCH 18 TO 24 will be observed as National Poison Prevention Week, the first of what will probably be a series of annual events. Congress has authorized the President to designate the third week in March each year to highlight the urgent necessity and the means to control a pandemic of accidental poisonings.

Prime attention this year will be directed to children under five years of age. This does not limit the emphasis as much as might be expected since almost all accidental poisoning occurs in the 0-5 age bracket. Accidental poisoning is practically unknown past the age of 12. In the 0-12 bracket 94% of the cases are under the age of 5; this is and always will be the important target for control activities.

As a result of the increase in number of toxic household chemicals, or because of better reporting or due to an absolute increase in poisonings, the number of reported cases has been increasing each year. Approximately one-half million children under five years of age were stricken last year. The death rate is close to one in 125. There were 456 deaths in the U. S. last year, five times the number of deaths in this age bracket from poliomyelitis. In Indianapolis and Marion County there were 586 reported accidental poisonings in 1960.

There is a tendency to think of the newer toxic substances as contributing heavily to the problem. While the new household materials account for some of the trouble the old standbys are still the favorites. Aspirin and aspirin combinations account for one-third of all cases. Detergents and polishes are second on the list. Pesticides are third.

The publicity of the program will be focused chiefly on prevention. If the seriousness of the problem is realized and intelligent adults pay attention there is no reason why poisons cannot be kept out of the hands of youngsters. Poison prevention should be easy if the adults are properly indoctrinated. Widespread indoctrination is the difficult part and that is the reason for the campaign.

Treatment—prompt, intelligent and specific treatment—is the next best thing. This item has been given a big boost by Poison Control Centers. Indiana has 31 either informational or active treatment centers, located in the larger hospitals and in the State Board of Health. At the present time three or four new centers are contemplated and it is always possible to obtain informa-

tion in regard to proper antidotes and treatment for the newly invented toxic household products.

The Indiana law requiring proper labeling of all dangerous substances sold in the state for use in and around the home was the first of its kind. Its requirement that the toxic ingredients be specified on the label makes it possible for physicians to direct treatment on a rational basis.

All discussions of poisoning in children should end with the reminder that, out of thousands of toxic household substances, aspirin involves one-third of all the victims. Physicians should constantly be preaching poison control in the household.

Guest Editorial

The Changing Nursing Scene

HISTORICALLY there has always been a precise relationship between nurse and doctor in the care of the sick which has hithertofore been mutually beneficial and highly enviable in its professional connotations and the mutual respect shown one for the other. The profession of nursing is an old and honored one. There are now present, however, certain changes in that profession which portend no good for the nurse, the doctor and, most importantly, for the patient. Indeed, there have already developed profound differences in nursing philosophy and teaching which threaten to divorce her from her traditional role. Most of these are disappointing, frustrating and ill-advised. This feeling is shared by many nurses as well as physicians. Certainly this is not meant to disparage the numerous nurses who still maintain a high professional standard, an appealing dignity and a sincere *personal* interest in the patient.

Daily we see evidence of profound changes in our way of life in practically all of its many facets. One could hardly be so naive as to believe that the nursing and medical professions would be immune to them. This apparent deterioration in integrity, in pride of achievement, and in abandonment of the quality of excellence is poorly tolerated by most of us even when they pertain to other spheres of our existence. They are particularly distressing, however, when they threaten to involve the very soul of our profession, namely the care of the patient. In this metamorphosis one sees the nurse emerging more as an executive concerned with the patient only remotely and controlling the activities of groups of ancillary workers ad distans. Poorly trained technicians with no medical background threaten to engulf most aspects of patient care traditionally reserved for nurses, and whether we like it or not they are here to stay. Indeed, the responsibility delegated to those with limited medical knowledge seems to be increasing daily.

Patients complain frequently about the lack of nursing attention in our hospitals. No one denies the shortage of graduate nursing personnel but are we getting the maximal mileage out of those we have? They now treat the patient remotely, punching buttons here and there and communicating with the anxious patient over the intercom. No one has yet found a method of giving back rubs or a little tender loving care over this modern method of communication! Not only does the patient suffer in this relationship but the physician has only to make rounds on a modern hospital floor to come to the somber realization that he is no longer the captain of the ship. The honor and respect previously accorded him commensurate with his position have for the most part disappeared. He is now tolerated, nothing more. How refreshing it is to occasionally encounter an "old fashioned nurse" who stands when one approaches the desk and asks sincerely if she can be of assistance. Usually, however, the physician must search for his records, attempt to do dressings alone, and having struggled thus far frequently has no place to sit in order to write his orders and notes!

Should he be so unfortunate as to approach the floor at the hour of the morning report or of the mid-morning coffee break

he is even more on his own. The former involves an inviolate ritual comparing in importance with a meeting of the Security Council of the United Nations. It is at this time that the various categories of maids, aides, orderlies, technicians, student nurses, practical nurses, and volunteer helpers, as well as graduates gather for guidance, instructions and segregation into teams. As in the pregame huddle, they are arranged according to rank, priority in position being gained by professional seniority, the more uninitiated being relegated to the periphery! Both patient and doctor must fend for themselves during these periods and brave is the physician who intrudes.

Apparently the high premium previously placed on dignity and efficiency in nursing is now minimized in its teaching. Today the nurse is frequently more interested in the psychic and social aspect of her patient than in his more important manifestations, and is unabashed when she is unable to throw the slightest light on the patient's pulse, temperature, blood pressure, urinary output or general condition.

Mistakes in medication and failure to follow the physician's instructions are accepted with equanimity as long as they are not lethal. Nursing training school administrations have apparently adopted the dubious modernistic theory of child-rearing as their credo. They feel that firm correction of mistakes is tabu, out of order, and even degrading. Not only is the student nurse taught nothing about ethical procedure and medical mores, but she may well be totally ignorant about aseptic technique in the dressing of wounds. In our hospitals they frequently ask if one will need sterile instruments to dress a laparotomy wound! And, usually the most untrained member of the nursing personnel is assigned to accompany the physician on his dressing rounds after much buck-passing and delay. One wonders at what point the common sense teaching in these matters was abandoned! Today when the avoidance of infection is of paramount importance on our surgical floors, this lack of knowledge is inexcusable.

Much of the responsibility for this sad state of affairs lies with the medical profession whose members have often demurely accepted inferior nursing standards in an effort to maintain their personal popularity. Discipline, so essential in any effective effort, and especially so during a period of training, must be restored and it should begin with the undergraduate nurse. In medicine there is no place for compromise, and when we seen errors in technique or in any phase of the teaching of these young women it is mandatory that we worry less about our individual reputation and *more about our patients.* After all, health services are not the arena for the average, the mediocre, or the commonplace. It must be unequivocally excellent. Day by day we see our diagnoses questioned, our treatment disparaged, and our dignity humbled oftentimes by nurses younger than our own children. It is high time that we return to the concept that nursing primarily has to do with the *comfort* and *care* of patients and not particularly with their *diagnosis* and *medical treatment.* And as a corollary, it behooves the physician to again assume his rightful responsibility in the control and direction of fundamental nursing principles.

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Editorial Notes . . .

It is well known among opinion-poll-takers that the questions may be worded so as to grossly influence the results. The American Academy of General Practice has announced some results from an opinion survey done for the Academy by the Opinion Research Corporation.

Among other questions, there was one which was worded in such a manner as to obtain the truth. People were asked whether they favored a rise in taxes to pay doctors a salary. 80% said 'no.' This is a real opinion survey because it got down to basic facts. Socialized medicine would do

both these things, raise taxes and put doctors on salary.

Most people don't want this. They don't want a rise in taxes and especially not for the purpose of entangling doctors in private practice with a government salary. When they are asked whether they favor "free" medical care for old people on social security, they become involved in emotional considerations and forget who is going to pay for the "free" care, and a lot of them say 'yes.' All questions concerning who is for a new program or not should include a reminder as to who is going to pay for it.

Despite the fact that the death rate from influenza and/or pneumonia has declined more than 80% since 1900, these two diseases separately and in combination still constitute a public health problem. 65,000 Americans died in 1960 from influenza-pneumonia, about as many as died of hypertensive heart disease. This in spite of fairly effective influenza vaccine and treatment by antibiotics. Health Information Foundation feels that the fight against these diseases is "far from won." What has been accomplished is tremendous; (200,000 more people would have died in 1960 if the death rate of 1930's had prevailed), but there remains much to be done.

The recently issued Commemorative Nursing Stamp is one of a few which the Post Office Department has produced to honor a professional group. The design symbolizes the conveyance of the high and noble purpose from Florence Nightingale to all nurses, and honors the some half million graduate nurses and almost 120,000 student nurses in the United States.

The Hartford Hospital, scene of a tragic fire on December 8, was, of course, built (in 1948) according to the building and safety codes of that day. It was described then as "fireproof" and "one of the safest buildings in the world." The fire originated in the rubbish chute and broke out of the chute on only one floor, the ninth. Here it ignited the ceiling tiles which spread the fire rapidly. Both of the two smoke doors, which closed off the patient-occupied wings, were closed immediately, but one of the doors was unaccountably opened during the fire. Smoke also spread through the space between the ceiling tile and the floor above. This space was not compartmented and had no fire partition in it above the two smoke doors. The design of the rubbish chute and the type of ceiling tile, both standard in 1948, do not meet present-day safety standards. There were no fire safety requirements for smoke stop doors in hospitals in 1948; such doors are required to be self-closing and double-swing type by today's code. According to the National Fire Protection Association if such a fire occurred in a building built in accordance with present-day standards and protected by sprinklers the loss of life would be minimal or none at all.

Indiana's traditional conservativeness showed up in a new way last year. Births in the United States in 1961 will probably set a new record. When all the figures are in the number is expected to exceed the 4,308,000 born in 1957. Our state record also occurred in 1957—115,727. However in 1961 the Hoosier crop was conservative, not many more than 113,000. The State Health Commissioner, Dr. A. C. Offutt, is looking ahead and forecasts a brand new record sometime before 1970 when the post World War II babies attain child-bearing status. ◄

President's Page

THE FUTURE OF MEDICINE AND YOU

The subject matter of this page will be similar to that of last month entitled "Socialized Medicine." I had not intended to use similar subject matter in two consecutive articles but, I feel now that this is a matter of such importance to each and every one of you that I must take the chance of being repetitious and add some more thoughts to this subject at hand, that is the King-Anderson or HR 4222 bill now before the Ways and Means Committee of the House of Representatives. This of course is the Social Security approach to the health care for the aged.



The thing which has prompted this article is that I have just returned home from the AMA Legislative Conference which was held in Chicago January 26th and 27th. The attendance at this Conference was excellent, there being a number of representatives of every one of the fifty state medical organizations as well as from Puerto Rico and the Virgin Islands. Indiana was more than adequately represented by members of the ISMA and two of our most active Woman's Auxiliary members, in fact the Chairman of the ISMA Executive Committee and the President of the Auxiliary were on the program during the first morning of the general meeting.

Now to get down to the meat of the problem, and this is the subject of "Socialized Medicine" and the attitude of the average physician toward this matter. Some of our colleagues are not aware of the danger of this legislation and I have even heard some say that this will not necessarily lead to socialized medicine. Gentlemen, WAKE UP, for this is most certainly the first foot in the door to the complete socialization of all health care. Not in one nation of the world where medical care such as that con-

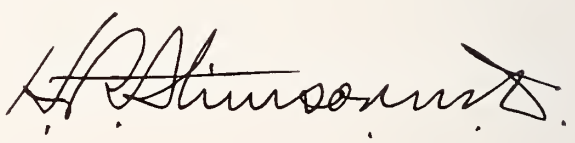
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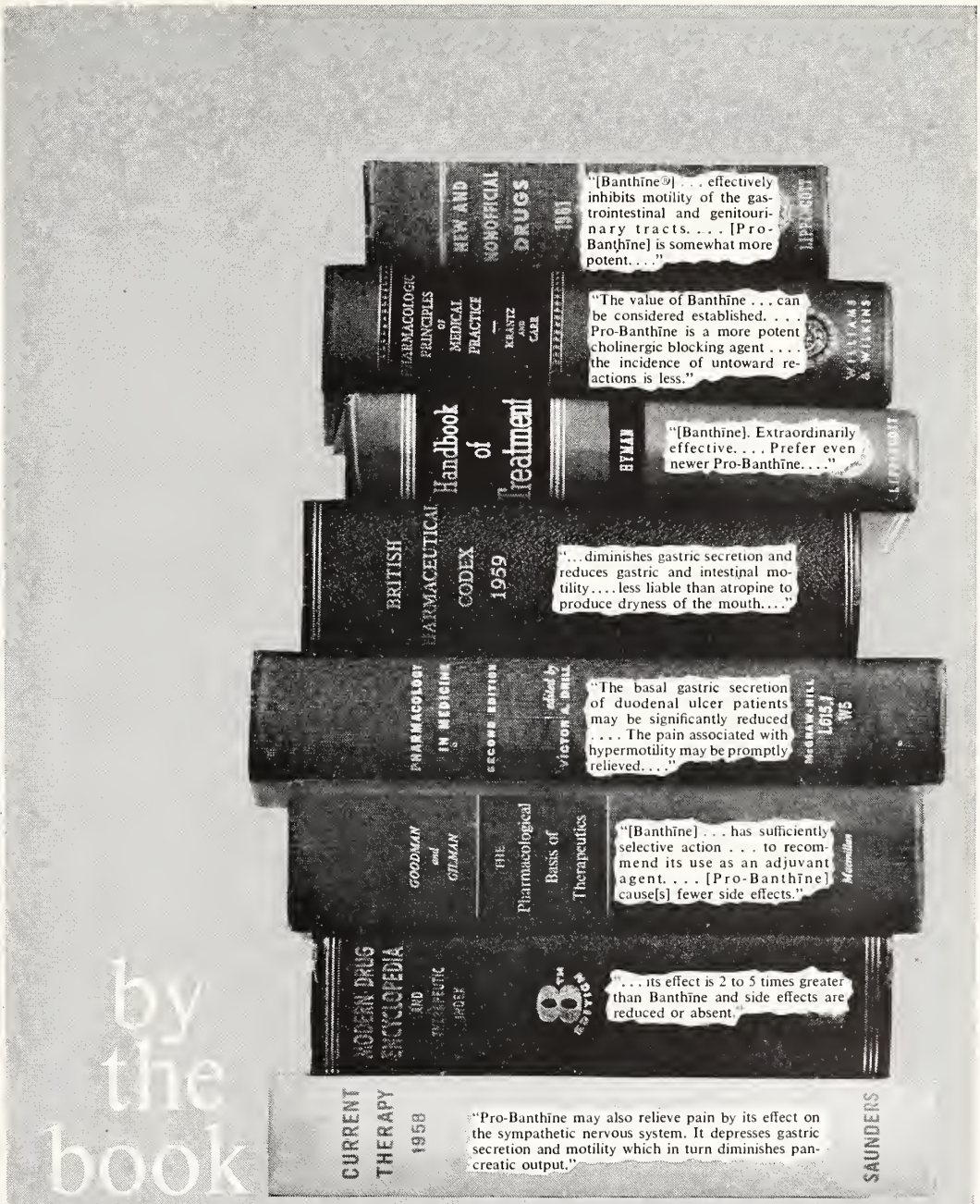
PRESIDENT'S PAGE

Continued

tained in HR 4222 for the aged or any other group was initiated did the advocates of such care stop where they originally promised. Instead they continued pushing after having this foot in the door until there was complete socialization of all health care. I can excuse the apathy shown by some of our profession in this matter because they perhaps have not been informed and do not know just what is going on. Also there are others who feel that a few of the leaders in medicine will carry the ball and that "everything will be all right." They are right in that most of the leaders are trying to carry the ball but help of EVERY physician in the nation is needed to make sure that "everything will be all right."

Gentlemen, medicine and free enterprise need you and need you NOW, so if you believe in the free enterprise system in medical practice, put your apathy behind you and get busy in this battle which involves every one of us. Your money is needed by the I-HOPE and AMPAC organizations but just as important and in some cases even more important some of your time is needed, your talents, your contacts and your downright dedication. Everyone of you can write letters to your Congressmen and Senators and also to the members of the House Ways and Means Committee. (The membership of this committee can be obtained through the State Headquarters office.) Many people outside of the profession are just as concerned and involved in this thing as you are and also just as much in favor of the preservation of free enterprise. A few of you have the talent of public speaking which is a tremendous asset at this or any other time. We especially need your talents to carry our story to other groups. I am as convinced as others are that ours is the right side of this controversy and if we can get our story over to the people of this nation then we truly shall have nothing to fear and "EVERYTHING WILL BE ALL RIGHT."





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The Woman's Auxiliary

REPORTS TO ISMA

It begins to appear that the Indiana Auxiliary will indeed play an historical part in the outcome of King-Anderson. Dr Blasingame asked me to speak at the National Legislative Conference in Chicago on the progress of the WHAM Campaign in Indiana. Physicians, Executive Secretaries, Field Secretaries, and medical-legal advisors from every state and territorial possession, including Alaska, Hawaii, and Puerto Rico, were on hand. With Dr. Don Wood and me both on the program, it appeared, according to some observers, that Indiana and the grasshoppers were taking over.



In response to our request to the counties for information on the progress of the campaign, Beth Bowen and I received 93 answers. Those responding represent a membership of 2,580 women. Those auxiliaries not responding represent 204 members. This 93% response is, in itself, evidence of an overwhelming amount of activity directed toward defeat of HR 4222. But most astonishing of all is the variety of ideas, the ingenious uses of the WHAM Kit material, and the tireless energy with which these women are working. Many who are performing most effectively have never before taken an active part in auxiliary work. A similar phenomenon can be observed in certain auxiliaries as a whole. There are some disappointments, true; but we cannot expect all to appreciate the dangers to medicine and the nation inherent in the bill.

I am sorry that space does not permit an adequate outline of what is being done by the various county auxiliaries to defeat HR 4222; but a copy of the report and a resumé of all the activities have been sent to all county presidents, presidents-elect, legislative chairmen, and publicity chairmen. I'm sure they will be encouraged by your interest if you ask to see it.

As a result of the report at the National Legislative Conference, seven other states immediately asked for AMA help with a WHAM Campaign. Every mail brings requests from doctors for me to write to women in their states to encourage them to follow Indiana's lead. I shall, through the AMA Speakers' Bureau, have an opportunity to speak to some of them if my schedule permits.

Congressman Durwood Hall, M.D., of Missouri, in his speech winding up the Conference, read some verse which he said he had written about me. Actually, of course, it is a tribute to the powerful pressures that can be exerted by Woman Militant.

"Madame's on the war path!
She's upped her tax-appeal.
They work even on the Sabbath
The New Frontier to seal.
She asks for an accounting
Of each and every dime!
When Home Economics are hurting,
We Congressmen toe the line."



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Bed Tilting Device— A Solution to a Common Problem in Patient Care

LOUIS F. SANDOCK, M.D.
South Bend

FOR SOME TIME, it has been apparent that present-day hospital beds lack one important facility. In spite of all the positions they can cause the patient to assume, they cannot make him assume a semi-lateral position. That this is a serious omission can be seen from the number of times it is necessary to laterally rotate a patient who is helpless, unconscious or immobile. The reason for this rotation may be to provide for patient comfort, to prevent the occurrence of decubitus ulcers, to prevent the occurrence of hypostatic pneumonia, or a combination of all three. In many cases, it is painful to the patient to be moved by hand from side to side. In almost all cases, it takes at least two nurses from 10 to 15 minutes to accomplish the task. Today, with a shortage of nurses and a full hospital load, the order to "Turn patient frequently" is oftentimes poorly obeyed. As a result, preventable complications may develop.

The principle of inducing or aiding the circulation of blood and other body fluids by gravitational forces is an old one. An article on this subject appeared in the *Canadian Medical Association Journal* entitled "An Oscillatory Bed Support in Principle and in Clinical Use" written by E. L. Harrington, Ph.D., F.R.C.S., Professor of Physics at the University of Saskatchewan. His experiments carried on at the University and at City Hospital and at St. Paul's Hospital at Saskatoon, led to some interesting observations.

It was found that a rotation of only 12° from the horizontal plane was sufficient to give the patient the sensation he was lying on his side. The effect of this rotation, a total of 24°, was found to cause vascular exercise enough not only to prevent the formation of decubitus ulcers and hypostatic pneumonia, but actually to cure those patients in whom these complications had developed.

A series of case histories is included in the report substantiating these claims. The bed support Dr. Harrington used was a pair of rockers, mounted parallel on the head and foot of the bed. Connecting rods held them in place. A steel pipe led from one to the other carrying a crankshaft from a motor which activated the mechanism. Rollers, thus activated, caused the bed to oscillate about a horizontal longitudinal axis.

Attaches to Most All Beds

Recently, because of difficulties encountered by this writer in managing an unconscious patient in traction, the problem of lateral tilting was again explored. It was obvious that the patient in this case had to be turned from side to side to prevent the development of hypostatic pneumonia . . . yet the nature of the traction was such that it was impossible to do so. Many hours of thought on the problem resulted in its being solved by the development of a simple, inexpensive bed tilting device that will attach to almost all hospital beds now in use.

The device does not interfere with any form of patient treatment such as traction, intravenous feedings, drainage tubes, casts, etc. One nurse, or aide, in seconds, can effortlessly turn the patient to any desired position in the 24° range. The device can

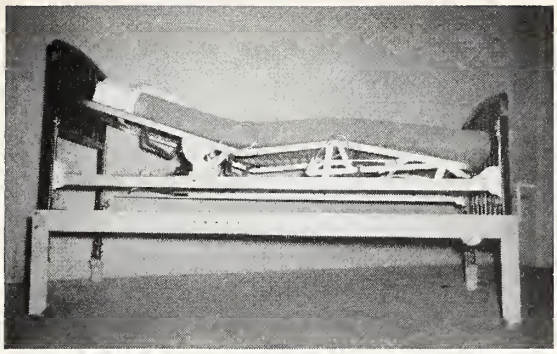


FIGURE 1
LATERAL VIEW of the bed tilting device showing the tilt to the left.

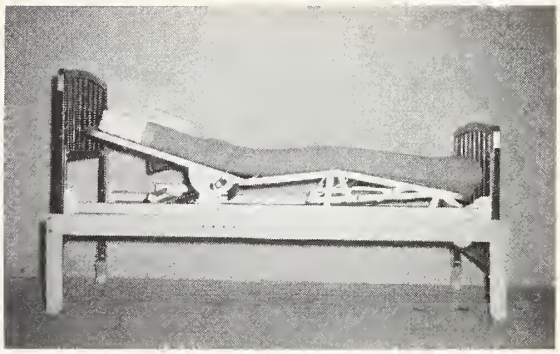


FIGURE 2
SAME as Figure 1, showing a level position.

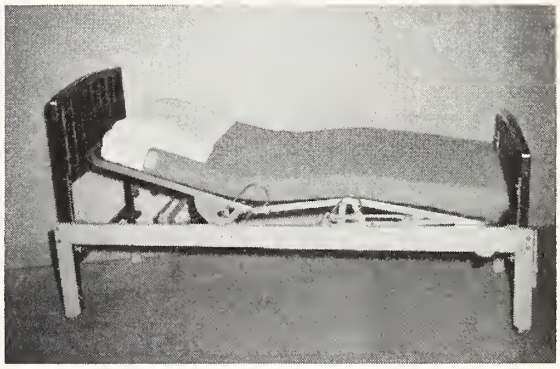


FIGURE 3
SAME VIEW as Figures 1 and 2, showing the tilt to the right.



FIGURE 4
OBLIQUE VIEW of the bed tilting device showing a tilt to the right.



FIGURE 5
SAME VIEW as Figure 4 showing a level position.



FIGURE 6
SAME VIEW as Figures 4 and 5, showing a tilt to the left.

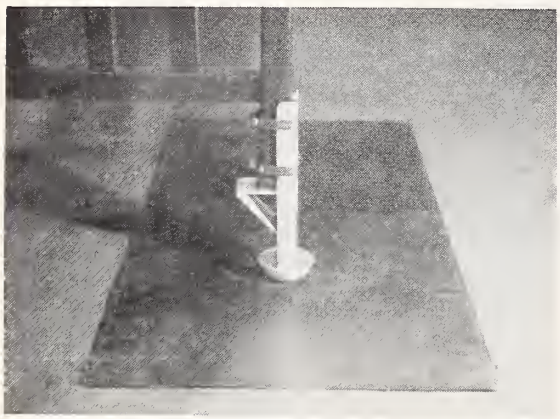


FIGURE 7
CLOSEUP view showing the stationary leg attachment.

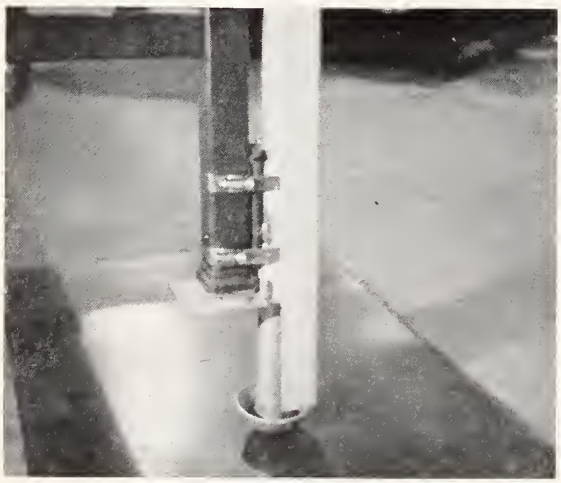


FIGURE 8
CLOSEUP view showing the slideable sleeve attachment.

be simply installed when needed and removed when it is not. Furthermore, it can be used to elevate any home bed to regulation hospital bed height for ease in patient care. All that is necessary is that the bed have legs at least four inches long. It is sturdy and virtually maintenance-free, having only two moving parts. No special instructions are needed for its use.

The device, as can be seen from the illustrations, consists of an inverted U-shaped tube which is adjustable as to length. There is an attached capstan through which a wire runs. Each end of the wire goes to a leg of the U. Outside each leg is a slideable sleeve to which the end of the wire is attached. This sleeve has a platform upon which the leg of the bed is placed. It is fixed by two adjustable metal straps. As the capstan is turned, the wire is shortened by equal increments at each end. As the wire is shortened, the slideable sleeves move upwards. As the sleeves move upwards, so, of course, does that side of the bed.

On the opposite side of the bed, on each leg, stationary platforms are fixed in the same manner. The bed is started in a level position. The side with the U tube is either elevated or lowered at will by a 50:1 ratio gear which makes turning simple. Each hour a few turns of the handle will suffice to rotate the patient about a longitudinal axis in any desired position in the 24° range. The U tube can be attached to either side of the bed, and from either side will tilt both ways.

Thus, it can be seen that a simple, practical device has been perfected which should help solve three major problems in the care of the helpless patient . . . providing for his physical comfort, preventing decubitus ulcers and preventing the devolpment of hypostatic pneumonia. Additional postural drainage can now be simply obtained. Furthermore, the nursing care of such a patient is immensely simplified and much nursing time is saved. It should prove a helpful adjunct to the treatment of the geriatric patient, the obese, comatose or unconscious patient as well as the patient in traction, following a coronary occlusion or a severe burn, etc.

The device is in use, or will be shortly, in hospitals in the Long Island and White Plain, New York area; the Veteran's Hospital at Marion, Indiana; Memorial Hospital and St. Joseph Hospital, South Bend, Indiana as well as in various nursing homes. ◄

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The Search for New Antibiotic Substances

JOHN E. McKEEN*
New York, N. Y.

IF ZACHARIAS JANSEN had not invented the microscope in 1590, it is possible that we would be less intimate with microorganisms than we are today—but not likely. Someone else would have invented the microscope. The history of research is replete with discoveries made over and over again by different people, sometimes simultaneously.

This has been painfully true throughout the pharmaceutical industry's huge soil-screening program in the search for new antibiotics. Innumerable Petri dishes have sprouted hundreds of molds which turned out to be old friends. Yet somewhere still, in some unguessed medium and unknown form, is an organism waiting to be discovered which may be used to produce a new and useful chemotherapeutic agent.

Long before the word "antibiotic" had entered the language, the original approach to infection was an empirical one. Medicine man, witch doctor or herb doctor, the primitive researcher observed that certain natural materials had predictable effects and began to employ them without understanding either their rationale or their implications.

The rational approach began around 1900 with Ehrlich who contributed the idea of making compounds which were selectively toxic—that is, more toxic to the invading parasite than to the host. In what sounds like a surprisingly modern approach, Ehrlich undertook the job of making over the molecule of atoxyl, substituting a 3-valent arsenic element for a 5-valent one, and after hundreds of variations, succeeded in synthesizing salvarsan, or compound 606.

A long drought in the hunt for other agents followed. It was broken in the thirties when a dye was found to be metabolized by the body into an active anti-bacterial compound—and so ushered in the era of sulfa drugs. Meantime, Fleming's discovery of penicillin was neglected and remained neglected until World War II brought a desperate need for drugs to fight infection, and a new interest in antibiotics.

The production of penicillin on a large scale was a genuine technical breakthrough, combining the efforts of British and American biochemists. Fleming's original strain of *penicillin notatum* produced such pathetically small amounts of the vital drug that industrial production seemed remote. The remark has already become a cliché, but is true, that there is literally more gold in sea water than there was penicillin in those first batches of broth.

It was to get American help with this problem that British researchers Florey and Heatley came to this country in 1941. Providentially, in that year the Peoria laboratory of the Department of Agriculture turned up with a moldy cantaloupe whose *Penicillium notatum* produced ten times the antibiotic of the British mold. Today mutant strains produce hundreds of times more, making possible mass production and a ski-jump drop in price.

Dramatic Engineering Revolution

The real drama, however, was in the biochemical engineering revolution which took place. Penicillium molds grown in milk bottles or laboratory flasks grew only on the surface of the liquid nutrient, which

Continued

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restricted it to a relatively tiny area. The idea of growing mold in a four-hour-story-high stainless steel tank holding 20,000 gallons meant that the finicky mold would have to be induced to grow submerged—an improbable task which was solved by forced aeration and constant agitation of this huge mass of fermenting liquid.

Two more problems were solved: maintaining the big tanks and their nutrient content in hospital-sterile condition, and cooling the broth as fermentation began. The growing mold generated some 70 BTU's of heat per gallon, every hour, which meant that an average tank could easily heat a five-room house. The mold would have cooked itself if this problem had not been met by running cold water down the outside of the tank. In our plant, several million gallons of water were used every 24 hours.

The success of the penicillin program touched off a hunt for other antibiotics. The earlier achievements of Dubos in developing tyrothrycin and gramicidin using soil bacteria, and Waksman in discovering streptomycin, turned attention to the earth. Waksman, who might be said to have founded the school of soil-searchers, said in 1958 that this activity yielded nearly 200 antibiotics from the actinomycetes alone. This was a conservative estimate.

Searching the soil for antibiotic-producing organisms necessitated a laborious and costly program of empirical screening. It couldn't be done on an efficient scale by individual researchers and the pace was stepped up sharply when industry took over the job. Success was not inevitable, but a large-scale operation at least increased the chances of discovery. University reasearchers bowed out of this activity in the main and concentrated on more academic problems such as trying to discover how the microorganisms make antibiotics—their method of biosynthesis—also how the antibiotics act to inhibit the growth of microorganisms. This important process is not well understood.

What is remarkable in this early picture of the great antibiotic hunt is the incredible good luck in discovering penicillin at all. Of all the possible sources of antibiotics, penicillium molds were one of the least likely. As a group these molds are less prolific by far than other antibiotic-producing organisms and it was the kindest of Providences that brought an active specimen to the attention of Dr. Fleming. Normally, a researcher might have hunted among the penicillia endlessly, finding little of value. Penicillin was a chance nugget picked up downstream by a lone prospector; the mother lode was upstream, among the actinomyces.

Need is Stimulant

What factors govern the attention paid to a particular area of research? One is urgent demand. At any given time there is an existing desirability, or need, for something, such as a remedy for a recurring disease. This was so with tuberculosis, and with poliomyelitis.

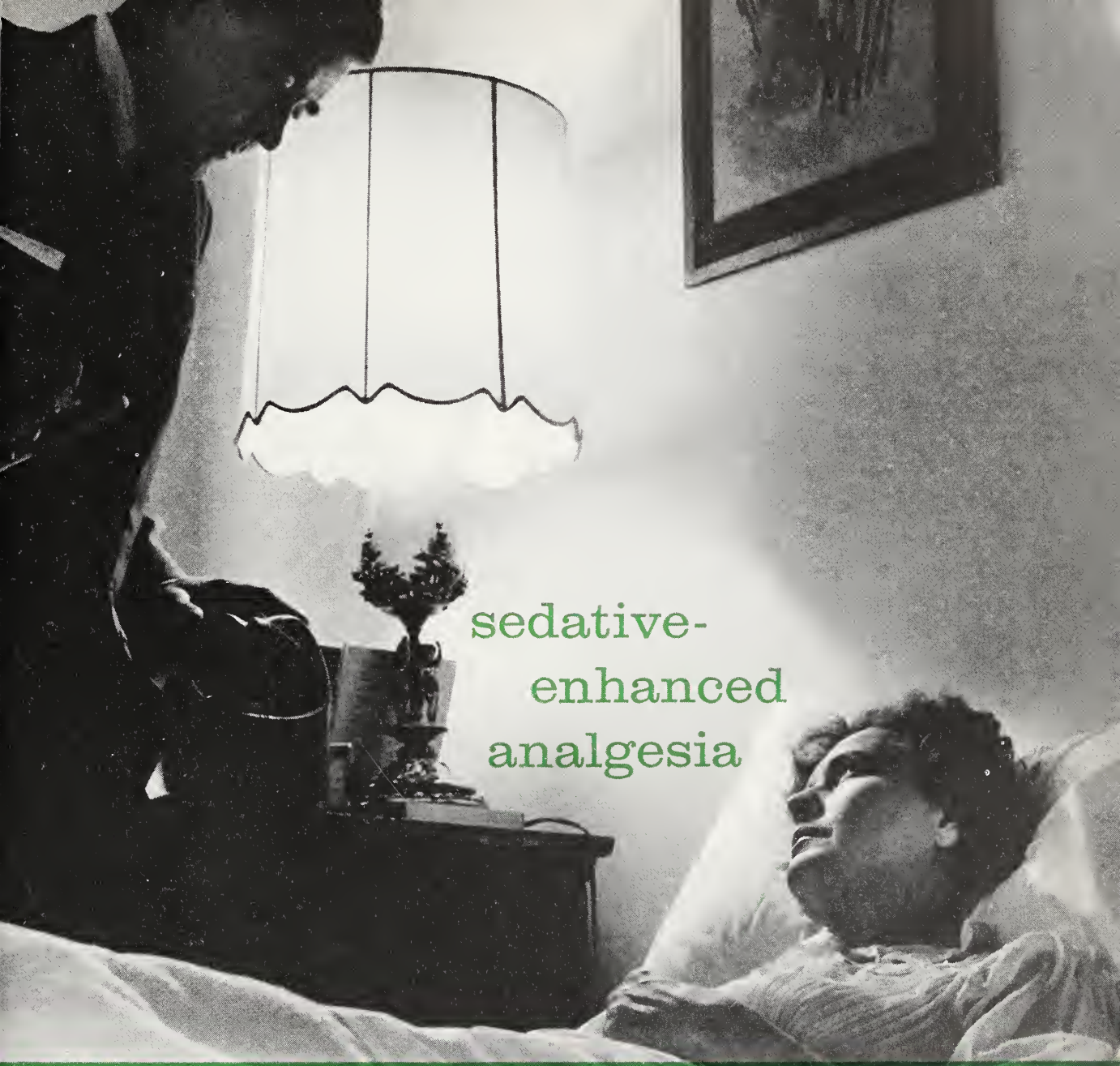
Need stimulates strong activity in search of a cure. It was so in the hunt for antibiotics. As every physician knows, penicillin is wonderful, within its limits. Streptomycin is effective, within its limits. There was still a need for a broader-spectrum drug, or a drug for patients who might be sensitive to one of the others.

In the developing antibiotic field, this need was largely met by the tetracyclines, such as Terramycin, which was developed after ten years of screening and research. We had now achieved several effective antibiotics capable of dealing with a very wide variety of infections. And then came a pause for reflection.

Our research scientists working in this field, who had scarcely stopped for breath since World War II, leaned back to take a long look at what they were doing. Inevitably they asked themselves some questions: How far have we come? Where are we going? What is our next objective?

Certainly many goals had been reached. A heartening number of infectious diseases were now susceptible to control. The physician who guarded the family health was armed with a battery of agents against infection which were, in perspective, honest

Continued on page 354



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SEARCH FOR ANTIBIOTICS

Continued from page 350

miracles. They were effective, safe and totally new in the sense that mankind had never had anything like them before. There was little doubt about the success of this phase of the antibiotics program.

As Always, The Unexpected

What then would the next goal be? Would antibiotics or antiinfective agents prove an ultimate weapon against cancer? Against viruses? Already one group of researchers were pressing a vigorous search for antiviral agents—in Japan, in Russia, and in the United States. And, as always, each hunt turned up the unexpected. Griseofulvin, long known as an unusual mold metabolyte, had not been considered an antibiotic, but was now found to have far more activity in animal tissue than in the test tube and is now considered one of the most effective systemics known against topical fungus infections.

It is healthy, during a soul-searching period, to go back and examine fundamental precepts once more. So it became necessary to consider again the rational basis for activity as contrasted with empirical, or random screening.

Already we had had more than a glimpse of such a rationale. It showed in our study of the tetracycline antibiotics and it pointed to a most productive area of activity. The tetracycline molecule had yielded whole groups of chemical varients, some of which may well turn out to be more desirable than the prototype. Some of these varients may literally be tailor-made to suit a condition. They may be controlled so that they are readily absorbed when taken orally and not toxic; their action may be distributed deeply or curtailed; they may be improved in maintaining desired blood levels or show other combinations of valuable clinical attributes.

Most exciting of all, in this process of altering compounds, we hope to reach the desired position of being able to *predict* the effect of a change in the molecule on its biological properties.

When this is achieved it will be a breakthrough whose magnitude can hardly be overstated. When the chemist reaches the point of contemplating a molecule and saying in essence, "If we change it here and here, we will get such and such an effect" he has tapped a new world of unlimited progress.

A start has already been made and a good example is our creation of an oral penicillin which would resist the activity of the gastric juices and pass into the bloodstream without loss of its antibacterial activity. The first big problem was that of obtaining the nucleus of the penicillin molecule, 6-APA. This was done by isolating several bacteria which produced an enzyme capable of splitting off the side chain from the penicillin nucleus. With the nucleus available, our chemists developed a number of methods of attaching new side chains to the nucleus, so that more than 2000 new penicillin compounds have been produced in our research laboratories. One of these was the long-sought, acid-stable, highly absorbed oral penicillin with virtually the same antibacterial spectrum as penicillin G.

Phase of Synthesis

This research is affording new insight into the complex interrelationships between structural changes and the biological effects which result. We have thus entered a period of more sophisticated research, with a glimmering of the rationale and the hope that we can predict the types of compounds we can obtain together with an idea of their activities. Whatever the ratio of our successes, we made far fewer inactive compounds, at least.

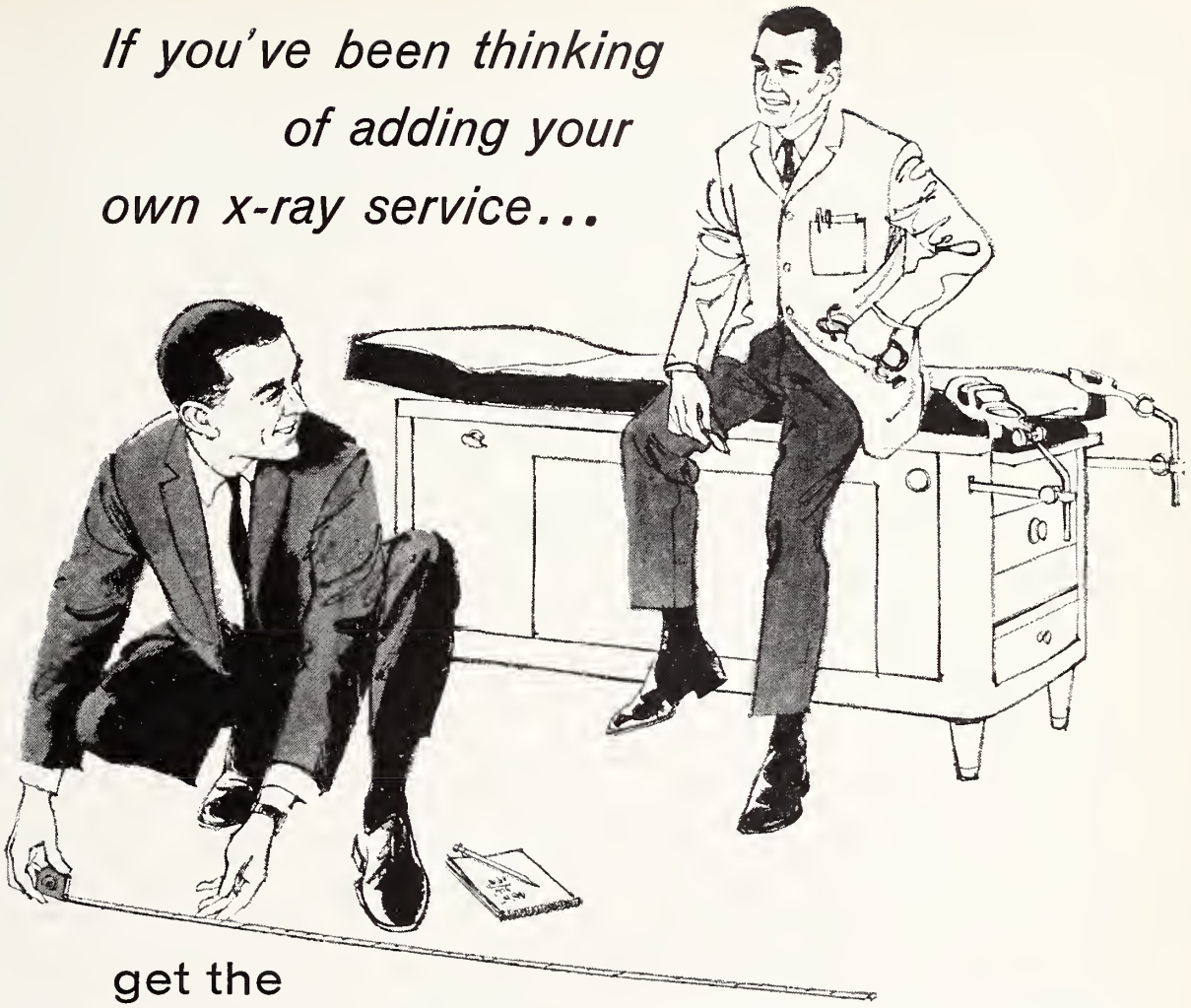
So from the relatively simple process of soil-screening, we have entered the phase of synthesizing, of building and changing the molecular structure of the compounds we know. Where has it brought us?

The breathing spell, or soul-searching phase, appears now to be drawing to a close. We are moving off the plateau again into a more advanced era of progress. We know what we are looking for and what its general dimensions should be like.

The substances which act against infection must have the important ability of disrupting the biology of the invaders. They must be selective, to destroy the parasite while respecting the host.

Continued

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ABSTRACTS

BOOK REVIEWS

ADRENERGIC MECHANISMS

A Ciba Foundation Symposium jointly with Committee for Symposia on Drug Action, edited by J. R. Vane, B.Sc., D. Phil., for the British Pharmacological Society, and G. E. W. Wolstenholme, O.B.E., M.A., M.B., M.R.C.P., and Maeve O'Connor, B.A., for the Ciba Foundation; published 1960, J. & A. Churchill, Ltd., and Little, Brown and Company, 595 pages and index.

It is impossible to do more than skim the surface in a review of this book. The reviewer, while holding an M.D. degree, finds himself a novice, nay, a babe in the woods in this technical forest; yet much of it makes exceedingly interesting reading, particularly the remarks of each of the different session chairmen, there being eight sessions at one meeting and two at another. There were two days at the Wellcome Trust and Foundation Building attended by 300 people, and two further days at the Ciba Foundation for "unscripted discussion" by 30 people, the whole affair being an international symposium.

Sir Henry Dale commented: ". . . so that even those among you whose role, like my own, will in the main be that of interested onlookers, may have the privilege of watching some of the most productive present-day workers in this special field, as they endeavour to wring from their recent harvests the last available drops of significant fact, or of stimulating theory." It is evident throughout the symposium that this is exactly what was done.

"Adrenergic mechanisms" refers to the actions and reactions in the body of the catechol amines, especially tyramine, dopa, dopamine, noradrenaline and adrenaline. The formation, storage and activity of these substances is concerned not only with the adrenals and the entire chromaffin system, but in other systems as well, including the brain. These mechanisms are often extremely complicated, thus requiring the subtlest of technics and theoretical analyses to be brought to light and clarified. Some of the body functions involved are blood pressure, blood sugar levels, cardiac rhythm, smooth muscle contractility, central nervous system metabolism and reaction to stress.

Certain new drugs are discussed, including guanethidine which inhibits vaso-pressor reactions (e.g. carotid sinus) lowers blood pressure of renal hypertensive dogs, and inhibits deposition of cholesterol in the aorta of rabbits on an atherogenic diet, without affecting the high blood cholesterol. In addition it protects mice against a lethal total-body X-irradiation. However, much remains to be worked out relative to its use in man. Both guanethidine and bretylium are adrenergic blocking drugs.

As specialized and technical as this book is, it might have considerable political and legislative influence if it could be read, at least in part, by Senator Kefauver's committee, since they could hardly fail to gain some insight into the complicated, time-consuming and expensive business of developing new drugs for human use, including such hard-to-believe facts as the profound effect often produced by changing the configuration of a molecule by one atom, etc. Furthermore, the intense devotion of the man of science in hewing to the line, "let the chips fall where they may," stands out in bold relief through this entire symposium, drawn from many lands and many different institutions of learning.

A. W. CAVINS, M.D.
Terre Haute

INSTRUCTIONAL COURSE LECTURES, 1960; THE AMERICAN ACADEMY OF ORTHOPAEDIC SURGEONS

By Fred C. Reynolds. Pp. 420; Illustrations 358; C. V. Mosby Company, St. Louis, Publisher; 1960; $18.50.

The C. V. Mosby Company had done an excellent job in publishing this series of 1960 Instructional Course Lectures of the American Academy of Orthopaedic Surgeons. The book is divided into five main parts. The first section is on fractures. It takes up difficult fractures of the neck of the femur. As is always the case when there is no entirely satisfactory method of treatment, the authorities differ rather widely in what constitutes the best method of treatment. Dr. Rudolph S. Reich feels that a hip prosthesis should be restricted to only those instances of non-union where there is an irrepairable head or there is marked shortening of the neck because of absorption. He favors more osteotomies and feels that they often vascularize the head.

Dr. John J. Hinchey is well satisfied with Moore vitalium prosthesis as primary treatment for the elderly and poor risk patients and emphasizes the early use of the extremities by this means of treatment.

Dr. Edwin Cave uses the Smith Peterson nail and emphasizes failures due to inadequate reduction,

Continued on page 362

SEARCH FOR ANTIBIOTICS

Continued

Our laboratories and other pharmaceutical houses are concentrating now upon synthesis. If the work can be said to have two stages, the earlier is the reconstruction of existing molecules; hopefully the second is the development of entirely new compounds. In either case we achieve the production of substances which had never existed in nature. We move closer to old Omar Khayyam's dream of reshaping the world nearer to the heart's desire. ◄



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Continued from page 356

improper internal fixation and improper postoperative care.

Dr. James T. Green believes that more fixation is needed. He advises a Smith Peterson nail with a femoral plate plus two small adjustable nails inserted alongside the Smith Peterson nail.

Dr. Carl E. Badgley advocates fixation for the femoral head with a triflanged nail reinforced by plate fixation to the femur. His special appliance allows the nail to slide out of the neck as absorption occurs without losing its attachment to the side plate. Dr. Badgley advocates routine open reduction of femoral neck fractures and points out the frequency with which intervening tissue is found between the fracture fragments and feels that open reduction insures a much better reduction.

Dr. John J. Fahey gives an excellent presentation of fractures of the elbow in children and points out that a better carrying angle follows treatment of supracondylar fractures with traction rather than manipulation and cast. He emphasized the necessity of accurate reduction of the lateral condyle and capitellum fractures.

Bone Graft Surgery

The second section deals with bone graft surgery. It takes up use of the homograft and goes into the different methods of operative procedures and indications for each type of bone graft. Causes and treatments of non-union of the shafts of long bones is reviewed in a large series of cases. As is true with the rest of the book this section is well illustrated and written in a very lucid manner.

The third section is on children's orthopaedics. There is an excellent report on skeletal age and the control of bone growth. Another chapter on unequal leg growth by Dr. Walter P. Blount is very excellent and Doctors George T. Aitken and Charles H. Frantz have an unusually good chapter on the management of the child amputee. Here again the photographs, drawings and charts are excellent and many practical problems are dealt with in detail.

Section four is a miscellaneous section that includes surgical approaches to the cervical spine. This chapter by Dr. Robert A. Robinson and Dr. Wayne O. Southwick contains beautiful anatomical charts and drawings and sets out the approaches required for most of the orthopaedic procedures in the neck. The anterior approach for removal of intervertebral disc and anterior interbody fusion is explained and accompanied by excellent illustrations.

In this section there is an excellent symposium on disability evaluation.

The fifth and final section is on athletic injuries. This section takes up injuries that are likely to be seen by anyone caring for high school or college athletes. The section on injuries of the hand, wrist, forearm and elbow by Dr. Thomas B. Quigley deals with a variety of injuries. For example, he feels that baseball finger can ordinarily be treated conservatively by plaster immobilization in a classic position of 90 degrees of flexion at the proximal interphalangeal joint and as much extension as can be achieved without producing a decubitus ulcer at the distal joint. In treatment of fractures of the forearm he feels that while acceptable reduction can sometimes be achieved by manipulation of fractures of the radius at the junction of the distal and middle thirds, no external splint will prevent later displacement caused by contraction of the pronator quadratus. He feels that all these fractures deserve prompt open reduction and internal fixation, generally with a Rush rod. He feels that primary open reduction and intramedullary rod fixation is the treatment of choice of fractures of the middle third of both bones of the forearm.

This volume should be a welcome addition to any orthopedist library and any general surgeon doing much orthopaedics will find this book of great use and interest. It is hard for one to read this book without wishing he could have heard the lectures on which this book is based and without hoping he will be able to attend the next instructional lecture series given by the Academy.

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Abstracts From Various Literature, Prepared by AMA

CHEMOTHERAPY OF CANCER

The use of chemicals to decrease the incidence of metastases in surgical patients, and for palliation of locally advanced and disseminated disease, is reviewed. Routine use of nitrogen mustard, 5-fluorouracil or Methotrexate at the time of operation is not advocated; although they decrease the incidence of metastases, they also increase morbidity. Further confirmation of their results is needed. Chemicals are not recommended in operation incisions, gut, peritoneal cavity, and bladder because results of adequately controlled investigations are not known. Intra-arterial infusion drugs given by single or continuous injections sometimes produces palliation of locally advanced disease. Regional perfusion should probably be used only for limb tumors. Results of radiotherapy are often superior to those of infusion or perfusion and should be considered first. Oral and systemic drugs are often useful, but most of them are toxic at therapeutic doses and their effect on patients must be considered.

McCredie, J. A., Inch, W. R.: Chemotherapy of Cancer in Surgical Patients. *Canad Med Assn. J*, 85:1236, Dec. 2, 1961.

5-FLUOROURACIL IN MALIGNANT DISEASE

In a clinical trial of its antineoplastic properties, 5-fluorouracil (I—FU) was administered to 118 patients. Definite objective improvement occurred in 31 patients (26%). However, only 18 (15%) of the objective regressions were of greater than two months duration. Twelve patients (10%) maintained objective regressions more than six months. It was apparent that 5-FU was most effective in breast cancer. Improvements also occurred in cancer of the ovary and in an undifferentiated carcinoma. Objective improvements in colon cancers were not observed as has been observed by other investigators. Administration of a maximal or sublethal dose of 5-FU was usually followed by severe toxic reactions consisting of nausea or vomiting, stomatitis, diarrhea, leukopenia, fever, and alopecia. A mortality rate of six percent was recorded as a result of therapy. Patients who did not improve became more rapidly debilitated and their survival time was decreased. It was concluded that 5-fluorouracil has a limited role in the treatment of selected patients with advanced breast cancer not responsive to hormonal therapy.

Kennedy, B. J., Theologides, A.: The Role of 5-Fluorouracil in Malignant Disease. *Ann Intern Med* 55:719, Nov., 1961.

DIGITALIS POISONING IN CHILDHOOD

In the past year five children with severe accidental digitalis poisoning presented at the Royal Alexandra Hospital for Children in Sydney. Having regarded this disease as a self-limiting one, the authors were shaken out of their complacency in 1960, when an apparently not very ill child died shortly after admission to hospital. This death prompted the energetic management of children subsequently admitted for digitalis poisoning. The clinical features of eight children with digitalis poisoning are tabulated, and illustrating case histories are presented.

Delay in seeking medical advice is common. Some of the children were examined initially by the family practitioner, who reassured the parent and prescribed placebo treatment only. Vomiting and drowsiness are early symptoms, although they may be delayed, even in the severely affected child. Dilatation of the pupils is an interesting feature, which seems to occur in the severely intoxicated child. A variety of arrhythmias is observed on the electrocardiograms, and these are the best index to the severity of the intoxication. Early emptying of the stomach combined with intravenous potassium chloride administration under constant electrocardiographic control appears the most satisfactory form of therapy. Digitalis intoxication in childhood is

Continued on page 366



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His acts being seven ages..."*

*As You Like It, Act II, Sc. 7



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in the "frantic forties"—For many patients in their "frantic forties," the pace never slackens—may even accelerate—while tensions multiply and physical resources dwindle. Out of this seedbed of stresses and anxieties grow much of the alcoholism, psychosomatic illness, and sympathetic overactivity of the middle years.

In each of these areas, VISTARIL is often effective alone or as an adjunct to other therapy. For example, in his series of 67 patients, King[1] found that 62 showed remission of anxiety, tension, nervousness and insomnia, as well as alleviation of symptoms associated with various functional and psychophysiological disturbances. He concludes that VISTARIL is well suited for use in the practice of internal medicine.

In the emergent situation, VISTARIL, administered parenterally, is a valuable aid to the physician in managing patients who escape psychic conflict via alcohol. According to Weiner and Bockman,[2] who obtained beneficial results in 81% of 175 patients studied, hydroxyzine (VISTARIL) may well be considered a tranquilizer of choice in the management of the acutely agitated alcoholic.

1. King, J. C.: Int. Rec. Med. 172:669, 1959. 2. Weiner, L. J., and Bockman, A. A.: Sci. Exhibit, A.M.A., Ann. Meet., New York City, June 26-30, 1961.

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See "IN BRIEF" on next page

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INDICATIONS: VISTARIL is effective in premenstrual tension, the menopausal syndrome, tension headaches, alcoholic agitation, dentistry, and as an adjunct to psychotherapy. It is recommended for the management of anxiety associated with organic disturbances, such as digestive disorders, asthma, and dermatoses. Pediatric behavior problems and the emotional illnesses of senility are also effectively treated with VISTARIL.

ADMINISTRATION AND DOSAGE: Dosage varies with the state and response of each patient, rather than with weight, and should be individualized for optimum results. The usual adult oral dose ranges from 25 mg. t.i.d. to 100 mg. q.i.d. Usual children's oral dose: under 6 years, 50 mg. daily in divided doses; over 6 years, 50-100 mg. daily in divided doses.

Parenteral dosage for adult psychiatric and emotional emergencies, including acute alcoholism: I.M.—50-100 mg. Stat., and q.4-6h., p.r.n. I.V.—50 mg. Stat., maintain with 25-50 mg. I.V. q.4-6h., p.r.n.

SIDE EFFECTS: Drowsiness may occur in some patients; if so, it is usually transitory, disappearing within a few days of continued therapy or upon reduction of dosage. Dryness of mouth may be encountered at higher doses.

PRECAUTIONS: Drowsiness may occur in some patients. The potentiating action of hydroxyzine should be taken into account when the drug is used in conjunction with central nervous system depressants. Do not exceed 1 cc. per minute I.V. Do not give over 100 mg. per dose I.V. Parenteral therapy is usually for 24-48 hours, except when, in the judgment of the physician, longer-term therapy by this route is desirable.

SUPPLIED: VISTARIL *Parenteral Solution* (hydroxyzine hydrochloride)—10 cc. vials, 25 mg. per cc. and 50 mg. per cc.; 2 cc. ampules, 50 mg. per cc. VISTARIL *Capsules* (hydroxyzine pamoate)—25, 50, and 100 mg. VISTARIL *Oral Suspension* (hydroxyzine pamoate)—25 mg. per 5 cc. teaspoonful.

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ABSTRACTS, REVIEWS

Continued from page 363

potentially lethal, but with energetic treatment the outlook is good.

Freeman, R., Farrar, J. F., Robertson, S. E. J.: Accidental Digitalis Poisoning in Children. *Med. J. Aust.* 2:655, Oct. 21, 1961.

NEW PATTERN OF IRON LUNG FOR PREVENTION AND TREATMENT OF AIRWAY COMPLICATIONS IN PARALYTIC DISEASE

Postural drainage of wet air passages is difficult in current patterns of tank respirator; more successful prevention and treatment is afforded by a new tank which rotates through 360° with the patient comfortably secured and the respiration continuing. Tilting is possible in any degree of rotation. The whole maneuver can be carried out by one person. Access to the back is easy when the patient is in the prone position.

Kelleher, W. H.: New Pattern of Iron Lung for Prevention and Treatment of Airway Complications in Paralytic Disease, *Lancet* (London) 2:1113, Nov. 18, 1961.

THE LENTE INSULIN TRIAD

A combination of two of the three members of the lente insulin triad was given to 65 patients with insulin-dependent diabetes. Forty-two received a combination of lente and ultralente insulin; 18 received semilente and lente; five received ultralente and semilente. These combinations were given to patients whose diabetes was uncontrolled with a single daily injection of an intermediate insulin. When greater hypoglycemic activity was desirable during the night, ultralente was combined with lente insulin. Frequently this permitted the elimination of an evening injection of intermediate insulin. Semilente was used with lente when greater hypoglycemic activity was needed during the day. The use of the lente triad gave satisfactory control of the diabetes. Disadvantages were minor. The use of the lente triad is recommended for control of the insulin-dependent diabetes. Preparations of insulin containing added foreign protein are outdated.

Whitehouse, F. W., Lowrie, W. L., Redfern, W. E., Bryan, J. B.: The Lente Insulin Triad with Emphasis on Use of "Lente Combinations." *Ann. Intern. Med.* 55:894, Dec., 1961.

TRISOMY 13-15

A female infant who had multiple congenital anomalies was found to have 47 chromosomes with trisomy for group 13-15. Eight previous cases had been reported. Analysis of clinical findings in these cases and the present case revealed that although no single abnormality was present in all the cases so far reported, the most common anomalies were: mental retardation, deafness, heart and eye defects, hemangiomata, cleft lip and palate, motor seizures, low-set ears, polydactyly, and horizontal palmar

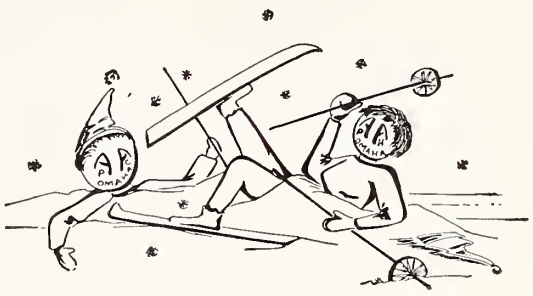
creases. It was felt that the clinical similarities provided evidence enough for the belief that trisomy 13-15 is a unique clinical entity.

Lubs, H. A., Jr., Koenig, E. B. U., Brandt, I. K.: Trisomy 13-15: A Clinical Syndrome. *Lancet* 2:1001, Nov. 4, 1961.

STOMAL OBSTRUCTION FOLLOWING GASTRIC RESECTION

Obstruction of the stoma following gastric resection seems more frequent since the use of vagotomy in the treatment of duodenal ulcers and since the method of keeping the stoma small to prevent rapid emptying of the gastric remnant, thought to be a major factor in dumping symptoms. The vast majority of such obstructions result from edema or temporary gastric atony and will subside without surgical intervention. Supportive measures—nasogastric suction, maintenance of normal fluid and electrolyte balance, administration of plasma, at times whole blood—are indicated. Difficulty may be encountered in keeping the patient and family reassured; and when obstruction persists, the surgeon himself may begin to doubt a favorable outcome. It is well to remember that surgical intervention is not to be considered lightly and is rarely necessary.

Strode, J. E.: Stomal Obstruction Following Gastric Resection, *Arch. Surg.* 83:869, Dec., 1961 ◄



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"nutrition...present as a modifying or complicating factor in nearly every illness or disease state"[1]

1. Youmans, J. B.: Am. J. Med. 25:659 (Nov.) 1958

cardiac diseases "Who can say, for example, whether the patient chronically ill with myocardial failure may not have a poorer myocardium because of a moderate deficiency in the vitamin B-complex? Something is known of the relationship of vitamin C to the intercellular ground substance and repair of tissues. One may speculate upon the effects of a deficiency of this vitamin, short of scurvy, upon the tissues in chronic disease."[2] 2. Kampmeier, R. H.: Am. J. Med. 25:662 (Nov.) 1958.

arthritis "It is our practice to prescribe a multiple vitamin preparation to patients with rheumatoid arthritis simply to insure nutritional adequacy . . ."[3]
3. Fernandez-Herlihy, L: Lahey Clinic Bull. 11:12 (July-Sept.) 1958.

digestive diseases Symptoms attributable to B-vitamin deficiency are commonly observed in patients on peptic ulcer diets.[4] Daily administration of therapeutic vitamins to patients with hepatitis and cirrhosis is recommended by the National Research Council.[5] 4. Sebrell, W. H.: Am. J. Med. 25:673 (Nov.) 1958. 5. Pollack, H., and Halpern, S. L.: Therapeutic Nutrition. National Academy of Sciences and National Research Council, Washington, D. C., 1952, p. 57.

degenerative diseases "Studies by Wexberg, Jolliffe and others have indicated that many of the symptoms attributed in the past to senility or to cerebral arteriosclerosis seem to respond with remarkable speed to the administration of vitamins, particularly niacin and ascorbic acid. These facts indicate that the vitamin reserve of aging persons is lowered, even to the danger point, more than is the case in the average American adult."[6] 6. Overholser, W., and Fong, T.C.C. in Stieglitz, E. J.: Geriatric Medicine, 3rd edition, J. B. Lippincott, Philadelphia, 1954, p. 264.

infectious diseases Infections cause a lowering of ascorbic acid levels in the plasma; and the absorption of this vitamin is reduced in diarrheal states.[7] 7. Goldsmith, G. A.: Conference on Vitamin C. The New York Academy of Sciences, New York City, Oct. 7 and 8, 1960. Reported in: Medical Science 8:772 (Dec.10) 1960.

diabetes Diabetics, like all patients on restricted diets, require an extra source of vitamins.[8] "Rigidly limiting the bread intake of the diabetic patient automatically eliminates a large amount of thiamin from the diet. . . . There is some evidence of interference with normal riboflavin utilization during catabolic episodes."[9]
8. Duncan G. G.: Diseases of Metabolism 4th edition W. B. Saunders, Philadelphia, 1959, p. 812. 9. Pollack, H.: Am. J. Med. 25:708 (Nov.) 1958.

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Medicine At Law

DECISIONS AND OPINIONS

Highlights of recent court actions pertaining to health and medicine from *The Citation* prepared by the Law Division of AMA.

Liability of Hospital for Refusal of Emergency Care Limited—A private hospital which maintains an emergency ward is legally liable for the consequences of its refusal to admit a patient to that ward only if there are unmistakable indications of an emergency, the Supreme Court of Delaware has ruled. The denial of a summary judgment for the hospital was affirmed and the suit was remanded to the trial court for further proceedings.

The patient who was refused admission was an infant, four months old. The child was under the care of two physicians. The parents, being alarmed at the continuing illness of the infant, brought it to the hospital because the physicians were not in their offices. The graduate nurse on duty in the reception room of the emergency ward refused admission because the infant was under the care of physicians and because she concluded that there was no unmistakable indication of emergency. Several hours later, the infant died at home of bronchial pneumonia.

The trial court denied the hospital's motion for a summary judgment, holding that the hospital, as a quasi-public institution, had a duty to furnish medical care in an emergency and that there was some evidence of an emergency in this case. The hospital appealed from this ruling.

On appeal, the court held that the receipt of public funds and the grant of tax exemption did not make a private hospital a public or quasi-public institution. As a private hospital, it may generally reject patients for any reason, the court said. It has no duty to establish an emergency ward, but if it does so it may not reject a patient who is presented for emergency care if there is an unmistakable emergency. The court noted, however, that there is a difference between an emergency case arising out of an injury and one arising out of a disease. It raised the question of whether standard hospital procedure permits a nurse to determine whether an emergency exists or whether an intern must be called to make the determination in every case.

In remanding the suit to the trial court, the appellate court stated that the parents cannot recover damages unless they present additional evidence "showing some incompetency of the nurse, or some breach of duty or some negligence."—*Wilmington General Hospital v. Manlove*, 174 A.2d 135 (Del., Oct. 2, 1961).

Negligence of V.A. Hospital Results in Paraplegia—A damage award of $200,000 was granted by a Federal District Court in Chicago to a veteran who became a paraplegic as a result of negligence of the medical staff of a Veterans Administration Hospital. The veteran was left with completely paralyzed legs, almost completely paralyzed arms, and loss of other muscular control, according to newspaper reports.

After a cervical laminectomy, during which the veteran's spinal cord was exposed, he was left in a ward for 17 hours without his pulse being checked and for 31 hours before his blood pressure was taken. Not until two days after the operation was any notation made on his chart as to loss of control of his hands and arms. Although his condition had not stabilized, no close watch was kept to determine any signs or symptoms of postoperative complications. The court held that the hospital



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staff failed to conform to the standard of care which prevails in the community.—*Banks v. U.S.* (D.C., Ill., Dec. 6, 1961).

Delay in Treatment of Cardiac Arrest Results in Multiple Damages—A woman patient suffered a cardiac arrest during an exploratory laparotomy operation performed at a Navy hospital in Florida. The arrest was noticed immediately after the first incision was made. Ephedrine was injected promptly, but did not restore heart action. Another surgeon was called in, and he performed a thoracotomy and cardiac massage which restored the heart action. A period of materially more than four minutes, however, elapsed from the time of the cardiac arrest to the restoration of circulation.

As a result of the interruption of circulation, the patient suffered brain damage which left her in a condition similar to that of a permanent paraplegic—a vegetative condition. Suit was brought against the United States under the Federal Tort Claims Act. Damages totalling $78,503.78 were awarded by the Federal District Court in Miami.

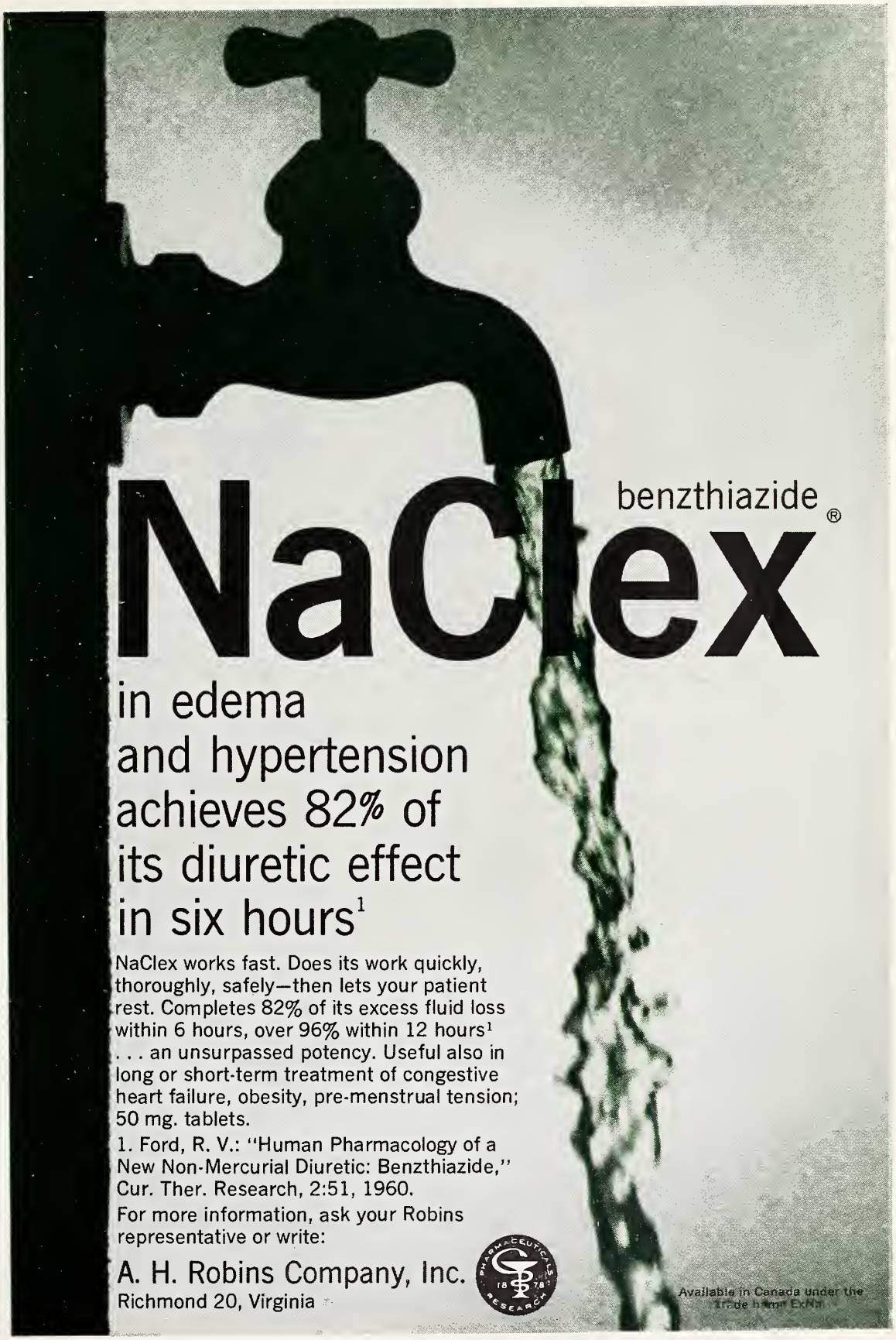
The court said that it is generally accepted in the medical profession that "a surgeon undertaking a surgical procedure should possess, as a part of his qualifications, the ability to perform a thoractomy and manual cardiac massage." It held that the hospital personnel were negligent in failing to diagnose cardiac arrest and restore circulation of blood and oxygen to the brain. Declining to apply a local community standard, the court announced that "it cannot be considered accepted medical practice in any community to permit the brain to suffer irreversible damage as a result of an unreasonable lapse of time materially in excess of four minutes."

The damage award was broken down into several elements. The patient was awarded $5,000 for past and future pain and suffering, and $15,000 for the loss of her mental and physical health and her ability to live a normal life. Her husband was awarded $48,503.78 for her future medical expenses, $2,000 for past loss of consortium, and $8,000 for future loss of consortium. The attorneys for the patient and her husband were allowed a fee of $15,700.75 to be paid out of and not in addition to the damage awards.—*Kolesar v. United States*, 198 F. Supp. 517 (DC, S.D., Fla., Aug. 11, 1961).

Recovery for Emotional Distress Allowed in Illinois Without Physical Injury—The right of a person to recover damages for emotional distress intentionally inflicted, even though there is no physical injury or other actionable wrongful act, has been recognized in Illinois. The Illinois Supreme Court adopted this rule in a case where a woman suffered such distress when a third party threatened to kill her husband and later carried out that threat when she was not present. The court recognized that it was departing from the traditional view, still followed in a majority of the states, that there can be no recovery for emotional distress unless it is caused by the commission of some other actionable wrong, or is accompanied by actual physical injury.—*Knierman v. Izzo*, 22 Ill. 2d 84, 174 N.E. 2d 157 (March, 1961).

Editor's Note: Although this decision does not involve the professional liability of a physician, it is of interest because it might be applied to establish a cause of action or to enhance damages in a suit against a physician. ◄

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1. Ford, R. V.: "Human Pharmacology of a New Non-Mercurial Diuretic: Benzthiazide," Cur. Ther. Research, 2:51, 1960.
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Gleaned from the British Medical Journal

JACK W. HICKMAN, M.D.
Indianapolis

What is apparently the first series of cases of post-myocardial-infarction syndrome to be reported in the British literature is that of Davidson, Oliver, and Robertson.[1] Even though Dressler's report appeared in 1956[2], British clinicians have not seen it as frequently as in this country. The present report is of five cases, who exhibited the classic signs and symptoms of chest pain, friction rub, fever, and in some instances, pericardial and plural effusion. Steroid therapy was used because of the possibility that an autoimmune reaction may be the etiologic factor. The question of continuing or stopping anticoagulants is not answered by the authors, so this problem is still with us.

* * *

Postoperative pneumoperitoneum is dealt with in two papers by Bevan.[3,4] These reports confirm previous work that reported an increased incidence of pulmonory complcations after abdominal surgery because of pneumoperitoneum, with resultant pulmonary compression. This appears to be one complication that has not decreased in frequency over the past five decades despite other advances in medicine. By using surgical techniques to avoid pneumoperitoneum, the author was able to decrease the incidence of post-operative complications. He lists these complications as post-operative pain, basilar pulmonary collapse, dehiscence, subphrenic abcess, phlebothrombosis and pulmonary embolism, and delayed restoration of gastro-intestinal function.

* * *

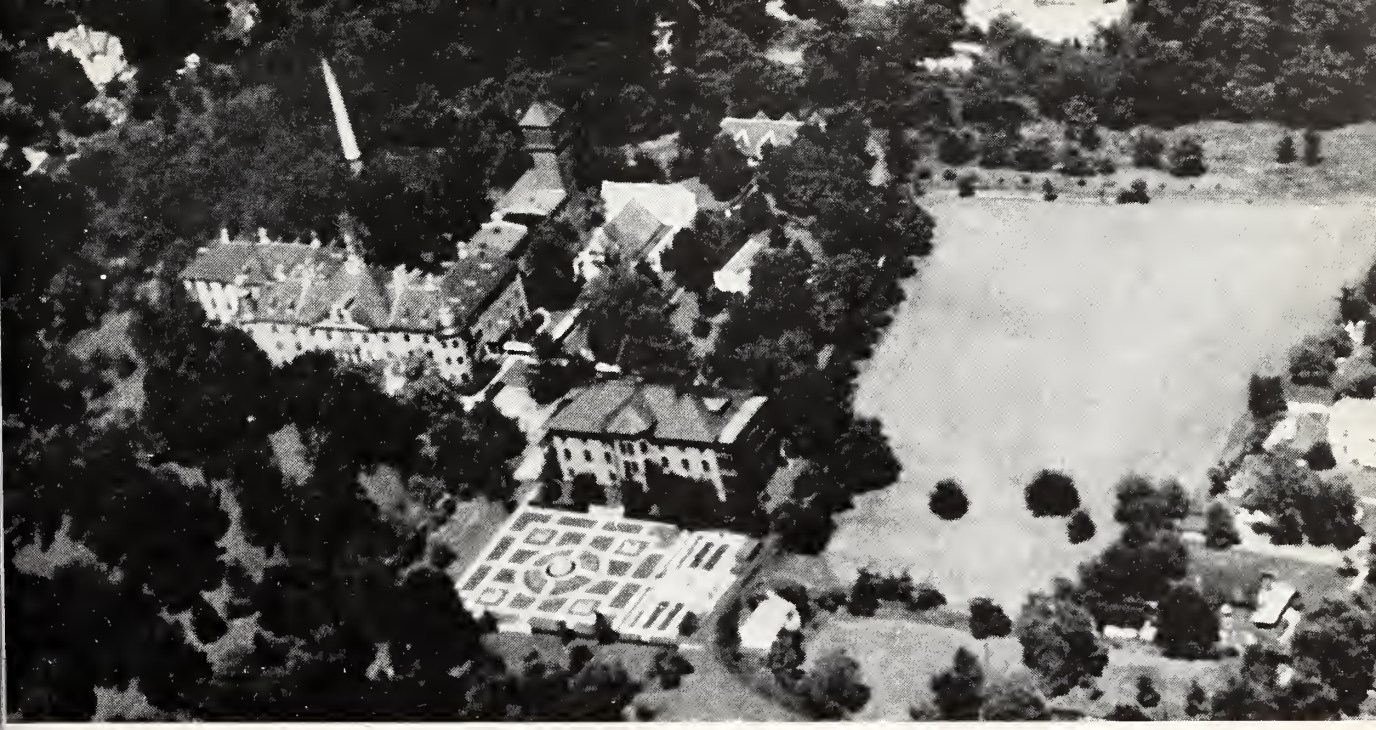
A large series, 111 patients who had hypophysectomy for advanced breast cancer is reported by Boesen, Radley Smith, and Baron.[5] All were done surgically except for seven, who had either gold or Yttrium implantation ablation. Twenty-one patients died within the first month after surgery, and are counted as direct surgical deaths. Regression or arrest of the disease occurred in 42% of the patients, with an increase in the average of life expectancy of 12 months. Those patients who previously had shown a favorable response to hormonal therapy were the ones most likely to benefit from hypophysectomy.

* * *

Acheson and Jessop report an interesting study on the association of tobacco smoking and lipid levels in retired men.[6] They were unable to demonstrate any increase in serum cholesterol or the beta lipoprotein ratio in smokers over non-smokers. Their study was of a random sample of 221 men aged 65 to 85. This differs from a number of studies in middle-aged men that showed a positive correlation between serum lipids and smoking. Dietary habits did not seem to be a contributing factor. Further speculation about the observations is presented. The title itself is encouraging, because the authors have shown the good sense and restraint to avoid the pseudo-euphemistic term "senior citizens," and have used instead the more exact term "old men."

* * *

A report from the Geriatric Unit of the Oldham and District General Hospital by Lloyd and Goldberg[7] stresses the importance of detection of hypothyroidism in the aged. Fifty-eight such cases were diagnosed by the authors in a 2½ year period. The difficulties in diagnosis are mentioned, because about 90% of the cases had been previously unsuspected, and referred in merely as "heart failure, cerbral thrombosis, anemia,



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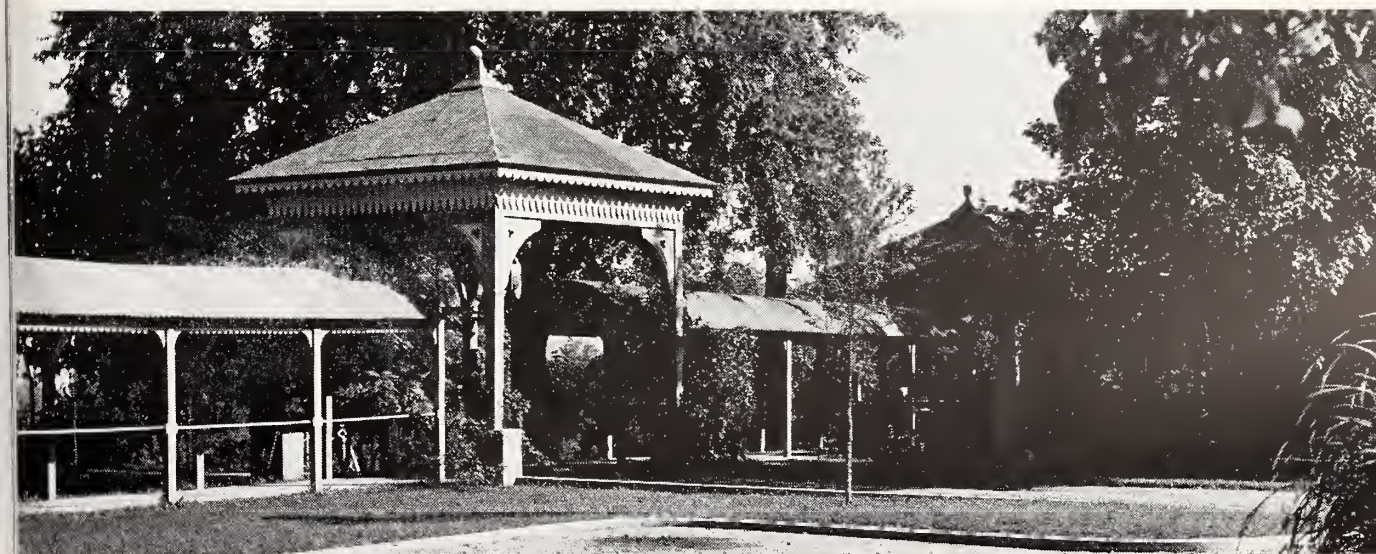
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Surgery of the Neck, March 15-17
Surgery of the Newborn, April 5-7
The Problems of Aging, April 26-28
Fluids & Electrolytes in Surgery, June 21-23
Pediatrics, July 26-28
Skin Grafting and Plastic Repairs, September 20-22
Clinical Endocrinology, October 25-27
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Continued

bronchitis, or senile." This correctable condition was so often confused with aging that the author's plea for more frequent recognition of it is justified.

* * *

BIBLIOGRAPHY

1. Davidson, C., Oliver, M. F., Robertson, R. F.: Post-Myocardial-Infarction Syndrome. *Brit. Med. J.* 5251. Pp. 535-539.
2. Dressler, W.: *J.A.M.A.* 160, p. 1379 (1956).
3. Bevan, P. G.: Incidence of Post-operative Pneumoperitoneum and its Significance. *Brit. Med. J.* 5252. Pp. 605-609.
4. Bevan, P. G.: Post-operative Pneumoperitoneum and Pulmonary Collapse. *Brit. Med. J.* 5252. Pp. 609-613.
5. Boesen, E., Radley Smith, E. J., Baron, D. N.: Further Experiences with Hypophysectomy in Advanced Breast Cancer. *Brit. Med. J.* 5255. Pp. 790-793.
6. Acheson, R. M., Jessop, W. J. E.: Tobacco Smoking and Serum Lipids in Old Men. *Brit. Med. J.* 5260. Pp. 1108-1111.
7. Lloyd, W. H., Goldberg, I. J. L.: Incidence of Hypothyroidism in the Elderly. *Brit. Med. J.* 5262. Pp. 1256-1259. ◄

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Special Blue Shield Benefit Programs

(One of a series prepared by Blue Cross-Blue Shield)

All Indiana employees of General Motors Corporation, Ford Motor Company and Chrysler Corporation now have new and improved Blue Shield benefit programs. A total of approximately 165,000 persons are involved, or 11% of our total membership. These new benefits became effective for all active employees on Jan. 1, 1962, and for most retired employees on March 1, 1962.

General Motors Corporation asked Indiana Blue Shield for a proposal as to benefits to be furnished their employees that could reasonably be expected to pay the full bill for covered services. Since Blue Shield in Indiana had worked predominately with the Standard and Preferred Schedules, it was then necessary for us to develop an entirely new concept for these employees. This request took us beyond the normal scope of our programs.

Since General Motors Corporation is paying the full Blue Cross-Blue Shield fees for the employee and his dependents, they were particularly interested in having Blue Shield provide payment on the basis of the local county society schedules. The scope of benefits Blue Shield is now furnishing General Motors Corporation employees in Indiana is one of the broadest ever adopted.

The most important changes in the new General Motors Corporation benefits (Blue Shield Benefit Code -4X—) from previous benefits include:

1. Payment will be made for surgical services, anesthesia, radiation therapy and in-hospital medical care according to the local county society schedule.

2. Maternity benefits are now available to the single female member, as well as the dependent daughter of a Family member.

3. Allowances for anesthesia for vaginal delivery shall not exceed $20.00.

4. Payment for in-hospital medical care will be provided for as many as 365 days.

5. New benefits include: Prolonged Detention, Consultation and Technical Surgical Assistance.

Ford Motor Company and Chrysler Corporation decided at least temporarily to adopt strictly the Blue Shield Preferred programs, with certain changes, until Blue Shield is in a position to provide further assurance that any type of comprehensive program would not be radically inflationary. For that reason, these two corporations adopted a program including a county schedule where available, and the straight Preferred Schedule where a county schedule is not available.

The most important changes in the new Ford Motor Company and Chrysler Corporation benefits (Blue Shield Benefit Code -8X—) from previous benefits include:

1. Maternity benefits are now available to the single female member, as well as the dependent daughter of a Family member.

2. Payment for in-hospital medical care will be provided for as many as 365 days.

3. Special Diagnostic Benefits: payment will be made according to the schedule up to $100.00 per Contract Year.

4. New benefits include Prolonged Detention and Consultation.

Since so many people are involved, Blue Shield feels that it is necessary to inform all Indiana doctors about these new programs. Only with full knowledge on the part of doctors, members and Blue Shield can we be sure that these programs will work out to the maximum benefit of all concerned.

In the new abstracts of benefits being furnished all these members, they are told to always discuss the charge with the physician prior to his rendering service. That's because we know there are certain areas of physician's care, in unusual and severe cases, that could cause the doctor's charges to be in excess of the local county society schedules. In such instances, doctors are urged to discuss this excess with the persons affected, and, if known, the amount Blue Shield will pay for the service.

The details of these benefits are described in a booklet "Special Blue Shield Benefit Programs" which has been mailed to all Indiana doctors. Additional copies of this booklet can be obtained from Blue Shield.

Warren C. Huddlestone
Public Relations Division ◄



AAGP SCIENTIFIC ASSEMBLY APRIL 9-12 IN LAS VEGAS

The American Academy of General Practice will conduct its 14th Scientific Assembly this year April 9-12 in Las Vegas, Nev. Nearly 3,000 physicians are expected to attend.

The Congress of Delegates will meet two days before the scientific program starts, on April 9.

Scientific lectures will cover practical subjects in surgery and medicine. A panel discussion on "Death with Dignity" will be led by a Jesuit theologian, a surgeon, and the assistant director of Sloan-Kettering cancer hospital. Melvin Belli, the famous plaintiff's lawyer, will discuss legal pitfalls in medical practice.

The Academy meeting will be the first national medical gathering to use the new Las Vegas Convention Center.

Drs. Hugh Williams and Clinton Wainscott prepared a paper which was presented to the Academy of Orthopedic Surgery at a recent meeting.

Gill Memorial Refresher Courses Set for April in Roanoke

The Gill Memorial Eye, Ear and Throat Hospital of Roanoke, Va., announces its 35th annual Spring Congress of refresher courses April 2-6, 1962. The course is staffed by leading consultants in the specialties.

The matriculation fee is $80.00 for the entire course, or $40.00 for either half. There will be a program for ladies.

Full particulars and reservation blanks may be obtained by writing Dr. E. G. Gill, Box 1789, Roanoke.

Dr. Land Named to National Committee

Dr. Francis L. Land, Fort Wayne, has been named as the American Academy of General Practitioners representative on the American Medical Committee on Graduate Medical Education and Training.

The committee, composed of doctors representing seven medical groups, studies internship and residency practices to determine if changes are necessary.

Continued

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ISMA Invited to Heart Symposium March 28-29 in Louisville

The Heart Association of Louisville and Jefferson County and The University of Louisville School of Medicine will hold the eighth annual Symposium on Cardiovascular Diseases in Louisville, Brown Hotel Roof Garden, March 28 and 29, 1962.

Registration is free and ISMA members are cordially invited to attend. The preliminary program is as follows:

Morning Session, March 28

F. Albert Olash, M.D., Presiding
Chairman, Symposium Committee

9:00- 9:30 "Shock"
Jack Crowell, Ph.D., Department of Physiology, University of Mississippi, Jackson, Miss.

9:30-10:00 "Cardiovascular Collapse"
Max Sadove, M.D., Professor of Surgery, Head, Division of Anesthesiology, University of Illinois, Chicago.

10:00-10:30 "Heart Block"
Sidney P. Schwartz, M.D., Associate Clinical Professor of Medicine, Columbia University, New York, N. Y.

10:30-10:45 Intermission

10:45-12:00 Panel on "Cardiovascular Collapse"
Walter S. Coe, M.D., Moderator, President, Heart Association of Louisville and Jefferson County, Inc.; Drs. Crowell, Sadove and Schwartz

12:00 Noon No luncheon scheduled

Afternoon Session, March 28

2:00- 2:30 Marc J. Reardon, M.D., Presiding; President, Kentucky Heart Association, Covington, Ky.

1:30- 2:00 Films

2:00- 2:30 (Title to be announced)
William Likoff, M.D., Director, Cardiovascular Section of the Department of Medicine, Hahnemann Medical College and Hospital, Philadelphia, Pa.

2:30- 3:00 (Title to be announced)
Dwight Harken, M.D., Associate Clinical Professor of Surgery, Harvard Medical School, Boston, Mass.

3:00- 3:15 Intermission

3:15- 3:45 "Alveolar Hypoventilation in the Pathogenesis of Cor Pulmonale"
Alfred P. Fishman, M.D., Associate Professor of Medicine, Columbia University, College of Physicians and Surgeons, New York, N. Y.

3:45- 4:15 Discussion

7:30 Dinner Meeting
Speaker: Jesse Stuart, Author and Poet Laureate, Greenup, Ky.

Morning Session, March 29
Jack Chumley, M.D., Presiding; President-Elect, The Heart Association of Louisville and Jefferson County, Inc.

9:00- 9:30 "Medical and Surgical Treatment of the Incipient Stroke"
Jack Whisnant, M.D., Assistant Professor of Neurology, Mayo Clinic, Rochester, Minn.

9:30-10:00 (Title to be announced)
E. Stanley Crawford, M.D., Associate Professor of Surgery, Baylor University College of Medicine, Houston, Texas.

10:00-10:30 "Anticoagulation in the Treatment of Patients with Stroke"
Fletcher McDowell, M.D., Visiting Physician in charge, Cornell Neurological Service, Bellevue Hospital, New York, N. Y.

10:30-10:45 Intermission

10:45-12:00 Panel on "Cerebral Vascular Diseases"



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Leukopenia has occurred occasionally in patients receiving novobiocin. Rarely, other blood dyserasias including anemia, pancytopenia, agranulocytosis and thrombocytopenia have been reported. In a recent report it was observed that three times as many newborn infants receiving novobiocin developed jaundice as control infants. For this reason, administration of novobiocin to newborn and young infants is not recommended, unless indication is extremely urgent because of serious infections not susceptible to other antibacterial agents.

The development of jaundice has also been reported in older individuals receiving Albamycin. Serious liver damage has developed in a few patients, which was more likely related to the underlying disease than to therapy with novobiocin. Although reports such as the above are rare, discontinuance of novobiocin is indicated if jaundice develops. If continued therapy appears essential because of a serious infection due to microorganisms resistant to other antibacterial agents, liver function tests and blood studies should be performed frequently, and therapy with novobiocin stopped if necessary.

In a certain few patients treated with this agent, a yellow pigment has been found in the plasma. The nature of this pigment has not been defined. There is evidence that it may be a metabolic by-product of novobiocin, since it has been reported to be extractable from the plasma (pH 7 to 8.1) with chloroform while bilirubin is not. These properties have been employed to differentiate the yellow pigment due to the metabolic by-product of novobiocin and bilirubin. However, recent reports indicate that this method of differentiation may be unreliable.

Urticaria and maculopapular dermatitis have been reported in a significant percentage of patients treated with Albamycin. Upon discontinuance of the drug, these skin reactions rapidly disappeared.

Warning: Since Albamycin possesses a significant index of sensitization, appropriate precautions should be taken in administering the drug. If allergic reactions develop during treatment and are not readily controlled by antihistaminic agents, use of the product should be discontinued.

Total and differential blood cell counts should be made routinely during the administration of Albamycin. If new infections appear during therapy, appropriate measures should be taken; constant observation of the patient is essential. If a yellow pigment appears in the plasma, administration of the drug should be continued only in urgent cases, and the patient's condition closely followed by frequent liver function tests. In case of the development of liver dysfunction, therapy with this agent should be stopped.

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NEWS NOTES

Continued

Edmund D. Pellegrino, M.D., Moderator; Professor and Chairman, Department of Medicine, University of Kentucky College of Medicine, Lexington, Ky. Drs. Whisnant, Crawford and McDowell

12:00 Noon — No luncheon scheduled

Afternoon Session

Beverly T. Towery, M.D., Presiding; Professor and Chairman, Department of Medicine, University of Louisville School of Medicine, Louisville, Ky.

1:30- 2:00 — Films

2:00- 2:30 — "Auscultation and Phonocardiography"
Aldo A. Luisada, M.D., Research Professor and Head, Division of Cardiovascular Research, Chicago Medical School, Chicago.

2:30- 3:00 — "Auscultation"
J. Scott Butterworth, M.D., President, American Heart Association; Associate Professor of Medicine, New York University School of Medicine, New York, N. Y.

3:00- 3:15 — Intermission

3:15- 4:00 — Clinical Pathological Conference
Ira Gore, M.D., Moderator; Chief, Laboratory Services, Veterans Administration Hospital, West Roxbury, Mass.; Professor of Pathology, Boston University Medical School, Chief of Pathology, Massachusetts Memorial Hospital, Boston, Mass.
Participants: Doctors Ira Gore, J. Scott Butterworth, Joseph P. Holt, and Woodford B. Troutman

Kentucky S.M.A. Occupies New Building

Headquarters offices of the Kentucky State Medical Association have moved from 1169 Eastern Parkway, Louisville, 17, Ky. to a newly constructed building at 3532 Janet Ave., Louisville 5. The telephone number remains the same: area code 502; 454-6324.

The new headquarters also houses offices of the *Journal* of the KSMA, Rural Kentucky Medical Scholarship Fund and KSMA Postgraduate Medical Education Office. ISMA members are invited to visit the offices.

Continued

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NEWS NOTES

Continued

CHICAGO DIABETES GROUP PLANS ANNUAL CAMP FOR CHILDREN

The Chicago Diabetes Association has set July 15-Aug. 5 as dates for the 14th summer camp for diabetic children at Holiday Home, Lake Geneva, Wisc.

Boys and girls from eight through 14 are eligible. Camp staff includes a resident physician, nurse, two dietitians and a laboratory technician in addition to counseling and domestic personnel. Rates are arranged according to individual circumstances.

Application information may be obtained from the Association, 620 N. Michigan Ave., Chicago 11. First review of applications is March 20.

A South Bend physician, Dr. Gordon C. Cook, left early in January for the Congo, where he is serving six months at a mission hospital. ◄

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INDIANA STATE BOARD OF HEALTH

MONTHLY REPORT — JANUARY, 1962

Disease	Jan. 1962	Dec. 1961	Nov. 1961	Jan. 1961	Jan. 1960
Animal Bites	283	330	389	212	225
Chickenpox	531	460	164	693	879
Conjunctivitis	105	63	48	61	82
Diphtheria	0	0	0	0	1
Dysentery, Unspecified	66	41	32	12	67
Impetigo	119	136	153	62	88
Infectious Hepatitis	123	180	111	123	57
Infectious Mononucleosis	24	17	10	35	16
Influenza	5298	1135	544	584	2177
Measles (Rubeola-Rubella)	359	219	141	562	578
Meningitis, Meningococcal	2	2	2	2	1
Meningitis, Other	4	21	4	2	9
Mumps	368	217	114	343	256
Pertussis	3	17	3	12	39
Pneumonia	203	198	142	196	272
Poliomyelitis	2	3	4	0	0
Streptococcal Infections	555	423	295	541	668
Tinea Capitis	9	20	29	7	12
Tuberculosis (Active)	92	125	63	Not Available	Not Available



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Honger Limbs are being successfully worn by amputees of all ages. David Canfield, just 13 months (*illustrated*), is one of the many young children growing up on Honger Legs. In contrast, Captain W. T. Traylor, over 75 (*illustrated*), now wears his fifth Honger. He is a fire inspector who must cover continually hospitals, schools, sports events, etc., and be on his feet for hours at a time.



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Deaths

Willis D. Gatch, M. D.

Doctors throughout the state will be saddened by the death of Willis D. Gatch, M.D. Dr. Gatch, who passed away on January 24, was born in Aurora, Indiana in 1877, the son of a doctor who saw service as a surgeon with the Union Army during the Civil War.



Dr. Gatch graduated from Indiana University in 1901 and from Johns Hopkins Medical School in 1907. He served as Dean of Indiana University School of Medicine from 1931 to 1946, difficult years which encompassed the depression and then the Second World War.

Whilst serving as resident surgeon at Johns Hopkins, Dr. Gatch developed the adjustable bed which bears his name and which is now in general use in hospitals throughout the country. During this period, too, he performed extensive research in the field of anesthesia, resulting in the safe usage of nitrous oxide-oxygen.

A prolific writer, both of monographs and sections of textbooks, Dr. Gatch always refused to write a complete text on surgery, averring that, in his opinion, no one man could be fully qualified to cover all the phases of such a vast and complex science.

Active in state medical activities, Dr. Gatch was president of Marion County Medical Society in 1949. He served as chairman on many committees covering a host of aspects in the medical field.

The passing of this great Hoosier surgeon will be mourned by friends and colleagues across the nation.

Elmer D. Johns, M.D.

Dr. Elmer D. Johns, retired Zionsville physician, passed away Dec. 25 at the age of 88.

Dr. Johns had practiced in Zionsville for 61 years, having retired in 1958.

Allen Hamilton, M.D.

Dr. Allen Hamilton, who practiced in Ft. Wayne until his retirement, passed away Dec. 18 in LaJolla, Calif.

A graduate of Williams College, Williamstown, Mass., Dr. Hamilton received his M.D. degree from the College of Physicians and Surgeons, Columbia University in 1902. He also studied in Berlin, Vienna and London.

Walter W. Meade, M.D.

A 57-year-old Bicknell physician and well-known cattle raiser, Dr. Walter Meade, passed away Dec. 28 at Vincennes.

Dr. Meade began practice in Richmond, Ohio, after graduation from the University of Cincinnati School of Medicine in 1929. He moved to Bicknell in 1941 and resumed practice in 1946 after serving two years in Europe during World War II.

Dudley Murray, M.D.

Dr. Dudley Murray, Roanoke physician, passed away Jan. 21 at the age of 78.

A graduate of the University of Illinois College of Physicians and Surgeons, Dr. Murray began his practice in 1906.

Walter E. Pennington, M.D.

Dr. Walter E. Pennington, Indianapolis radiologist since 1913, passed away Jan. 11. He was 73 years old.

Dr. Pennington was a graduate of the I. U. School of Medicine, class of 1913. A charter member of the Marion County Med-

Continued

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Dosage: 1 or 2 tablets with water just before each meal.

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REFERENCES: 1. Best, E. B., Hightower, N. C., Jr., Williams, B. H., and Carobasi, R. J.: South. M.J. 53:1091, 1960. 2. Analytical Control Laboratories, Organon Inc. 3. Best, E. B., et al.: Symposium at West Orange, N. J., May 11, 1960. 4. Thompson, K. W., and Price, R. T.: Scientific Exhibit Section, A.M.A., Atlantic City, N. J., June 8-12, 1959. 5. Weinstein, J. J.: Discussion in Keifer, E. D., Am. J. Gastro. 35:353, 1961. 6. Ruffin, J. M., McBee, J. W., and Davis, T. D.: Chicago Medicine, Vol. 64, No. 2, June, 1961. 7. Berkowitz, D., and Silk, R.: Scientific Exhibit Section, A.M.A., New York, June 25-30, 1961. 8. Berkowitz, D., and Glassman, S.: N. Y. St. J. Med. 62:58, 1962.

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DEATHS

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ical Society's Bowling league, he was presented a 50-year membership award in 1959.

E. A. Rainey, M.D.

Dr. E. A. Rainey, Lebanon physician for more than 45 years, passed away Jan. 9 after a lengthy illness. He was 84.

Dr. Rainey had received his ISMA 50-Year pin in 1958. He was a graduate of Indiana University, and started his practice in Jolietville before moving to Lebanon.

Wilkie B. Rice, M.D.

Dr. Wilkie B. Rice, Ft. Wayne physician and surgeon since 1911, passed away Jan. 5.

Dr. Rice graduated from Jefferson Medical College, Philadelphia, in 1910. He served in the Army Medical Corps during World War I, and was given Presidential citations for his work as medical examiner for the draft board during World War II.

John W. Southworth, M.D.

Dr. John W. Southworth, Deputy Commissioner of Mental Health, State of Indiana, passed away suddenly Jan. 28 at the age of 42.

At the time of his death, Dr. Southworth was Director of the Division of Child Mental Health, Assistant Professor of Psychiatry at Indiana University and Consultant at V.A. Hospital.

He was a graduate of the University of Oregon Medical School, Class of 1947, and had served three years in the Army Medical Corps. Before being named deputy commissioner, he served as superintendent of Logansport State Hospital and also as clinical director of Madison State Hospital.

James J. Stanton

An 81-year-old Logansport, Ind., physician, Dr. James J. Stanton, passed away Jan. 18.

Dr. Stanton had practiced in Logansport 56 years, and was a 50-year member of ISMA.

He served as Cass County coroner and was secretary of the Logansport Board of Health under three mayors. Dr. Stanton was physician for Eagles Lodge for over 50 years. He was a graduate of Jefferson Medical College, Philadelphia, and had served in the Medical Corps during World War I.

Robert K. Walker, M.D.

Dr. Robert K. Walker, Indianapolis physician for many years, passed away Jan. 14 at the age of 61.

Dr. Walker was a graduate of the I. U. School of Medicine. During World War II he was a Navy physician in the South Pacific.

Dr. Walter E. Vest
West Virginia Journal Editor

Dr. Walter E. Vest, Editor of the West Virginia Medical Journal, died at the age of 80, recently in Huntington, W. Va. Dr. Vest was one of the first editor members of the Advisory Committee to the Cooperative Medical Advertising Bureau of the AMA and served in that capacity for 10 years, the maximum term allowable.

He was later, and was at the time of his death, a member of the Advertising Committee of the State Medical Journal Advertising Bureau. He had just completed an advertising report a few days before his final illness. He was one of the deans of the state medical journal editors, and will be missed by his many friends in the profession. ◄

County News

Twenty-one Indiana county medical societies announced during January the results of their annual elections. Physicians taking office recently in their respective counties are as follows:

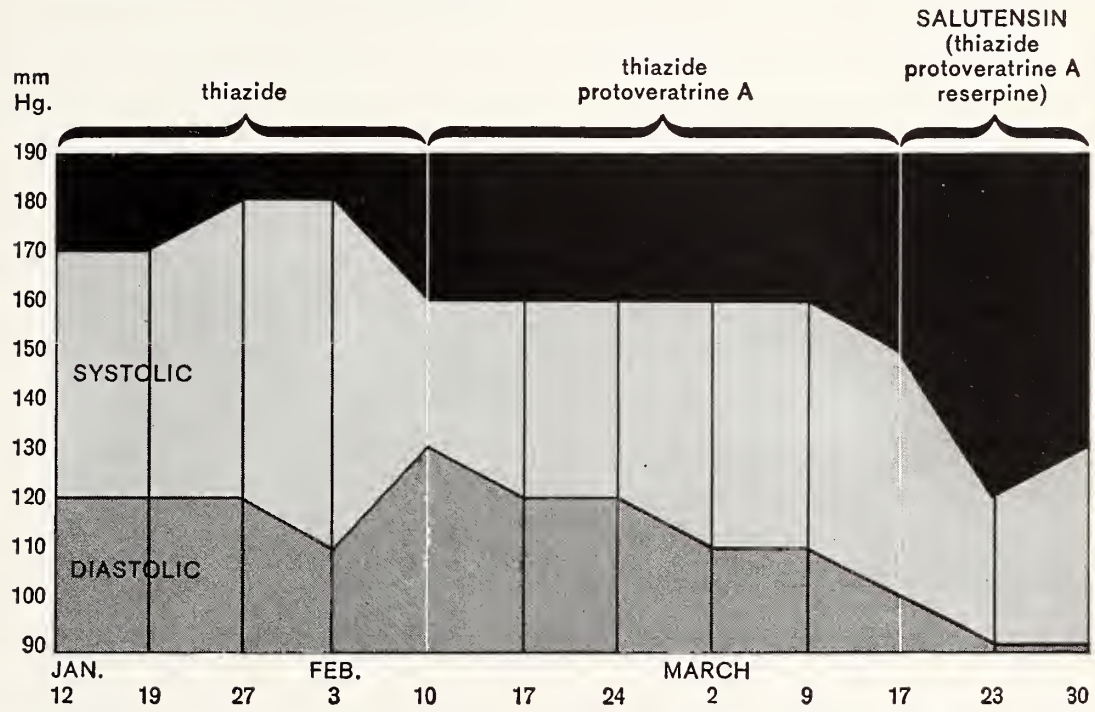
Cass: R. L. Glendening, president; J. M. King, vice president; C. M. Cobb, secretary-treasurer; E. W. Bailey, delegate; D. K. Winter, alternate.

Clark: Edsel Reed, president; Thomas Havens, vice president; George M. Wolverton, secretary-treasurer and alternate delegate; Eli Goodman, delegate.

Continued on page 394

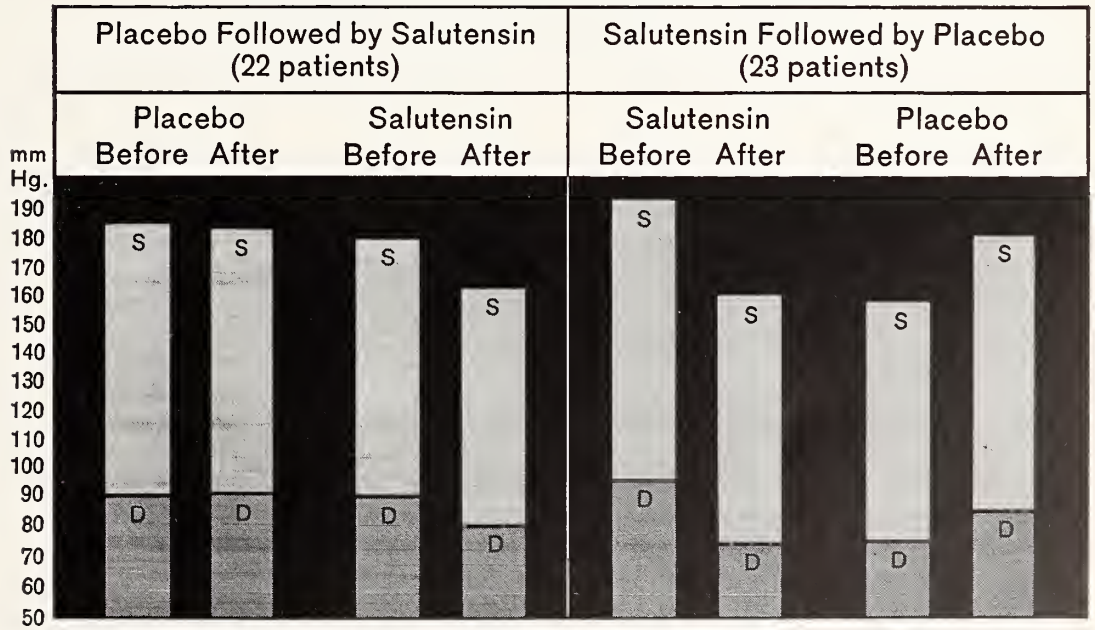
11 WEEKS TO LOWER BLOOD PRESSURE TO DESIRED LEVELS BY SERIAL ADDITION OF THE INGREDIENTS IN SALUTENSIN IN A TEST CASE

(Adapted from Spiotta, E. J.: Report to Department of Clinical Investigation, Bristol Laboratories)



3½ WEEKS TO LOWER BLOOD PRESSURE TO DESIRED LEVELS USING SALUTENSIN FROM THE START OF THERAPY IN A "DOUBLE BLIND" CROSSOVER STUDY

Mean Blood Pressures–Systolic (S) and Diastolic (D)



In this "double blind" crossover study of 45 patients, the mean systolic and diastolic blood pressures were essentially unchanged or rose during placebo administration, and decreased markedly during the 25 days of Salutensin therapy. (Smith, C. W.: Report to Department of Clinical Investigation, Bristol Laboratories.)

BRISTOL LABORATORIES/Div. of Bristol-Myers Co., Syracuse, N.Y.

COUNTY NEWS

Continued from page 390

Daviess-Martin: Robert H. Rang, president; Glenn E. Ross, vice president; C. Philip Fox, secretary-treasurer; Drs. Rang and E. B. Lett, delegates; Drs. Fox and Robert Chattin, alternates.

Dearborn-Ohio: Henry W. Conrad, president; George W. Irmscher, vice president; J. Kenneth Jackson, secretary-treasurer.

Fulton: Dean K. Stinson, secretary.

Greene: Robert E. Moses, president; K. B. Broshears, vice president; Harry Rotman, secretary-treasurer; Jerome Graf, delegate; Sam Rotman, alternate.

Hancock: Donn R. Hunter, president; John H. Smith, vice president; Ted C. Kirby, secretary-treasurer; Wayne H. Endicott, delegate; John H. Smith, alternate.

Jefferson-Switzerland: John R. Gambill, president; Warren R. Rucker, vice president; Ott B. McAtee, secretary-treasurer; Francis Prenatt, delegate; W. K. Sloan, alternate.

Johnson: George Bullington, president; H. K. Andrews, secretary; J. F. Ferrara, delegate; C. A. Jones, alternate.

Knox: Norbert M. Welch, president; M. L. Curtner, vice president; R. D. Tolbert, secretary-treasurer; V. C. McMahan and E. T. Edwards, delegates.

Lake: Thomas C. Tyrrell, president; J. P. Birdzell, president-elect; L. J. Armalavage, secretary; Mr. John B. Twyman, executive secretary.

LaPorte: J. B. Cleveland, president; George P. Backer, vice president; John F. Kerrigan, secretary; E. P. Messner, executive secretary.

Madison: Rex Dixon, president; Franklin K. Beeler, vice president; David Jones, secretary; J. L. Larmore and P. T. Lamey, delegates; W. A. Laudeman and S. W. Ellis, alternates.

Marshall: Ronald L. Peterson, president; Lloyd C. France, vice president; Kent Guild, secretary; James Kubley, delegate; L. W. Vore, alternate.

Parke-Vermillion: Milton Herzberg, president; Gerald F. Kempf, secretary.

Randolph: Lowell Painter, president; C. R. Chambers, vice president; Patricia J. Birum, secretary-treasurer.

Spencer: John C. Glackman, Jr., president and delegate; Michael O. Monar, secretary-treasurer and alternate.

Steuben: Norman W. Rausch, president; Richard W. Artz, secretary.

Tipton: Meredity Gossard, president; William A. Kurtz, vice president; Robert Haller, secretary-treasurer; Albert Stouder, delegate; Dr. Gossard, alternate.

Vigo: Lester M. Mason, president; Roy V. Ault, vice president; Hubert T. Goodman, secretary-treasurer; Norman M. Silverman and Stuart R. Combs, delegates; James V. White and Thomas V. Conway, alternates.

Wells: Pierre C. Talbert, president; Charles E. Jackson, vice president; S. Bruce Kephart, secretary-treasurer; Truman E. Caylor, delegate; Dr. Talbert, alternate.

Additional news from the county societies is as follows:

Allen

Dr. Karl Habel, of the Department of Health Education and Welfare and chief of the laboratory of biology of viruses of the department's National Institute of Allergy and Infectious Diseases, discussed "Virus and Virus Research" at Jan. 2 meeting of the Allen County Medical Society.

Cass

Dr. Clyde Culbertson, Indianapolis, spoke on Virus at the Jan. 8 meeting of the Cass County Medical Society. Fifteen members attended.

Floyd

Dr. Harold S. Kleinert discussed management of hand injuries with 29 members of the Floyd County Medical Society at their Jan. 12 meeting.

Jackson-Jennings

Twenty-two members of the Jackson-Jennings Medical Society heard a talk by a representative of the local Welfare Department on changes in the welfare program.

Jefferson-Switzerland

Dr. Jorge Manas discussed current medical practices in Cuba at the Jan. 9 meeting of the Jefferson-Switzerland Medical Society. Nineteen members attended.

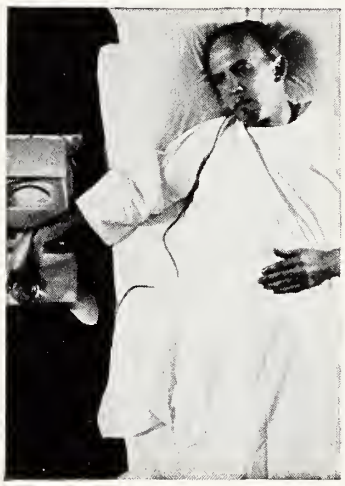
Johnson

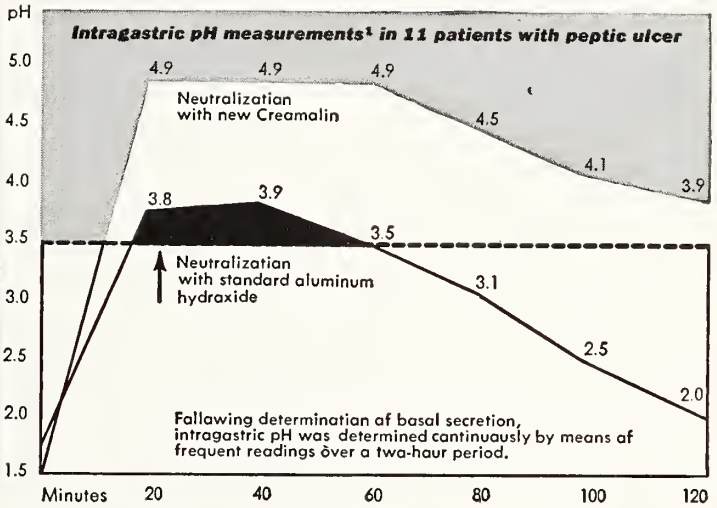
The Johnson County Medical Society is sponsoring an essay contest for local high

Continued on page 398

Acts as well in people as in test tubes

in vivo
neutralizes
40 to 50 per cent
faster—
twice as long at
pH 3.5 or above





New Creamalin®

Antacid Tablets

Buffers fast[1-4] for fast relief of pain—
takes up more acid

Heals ulcer fast—action more prolonged *in vivo*

Has superior action of a liquid, with the convenience of a tablet[5]

Each new Creamalin antacid tablet contains 320 mg. of specially processed, highly reactive dried aluminum hydroxide gel (stabilized with hexitol) with 75 mg. of magnesium hydroxide. New Creamalin tablets are pleasant tasting and smooth, not gritty. They do not cause constipation or electrolyte disturbance.

Dosage: Gastric hyperacidity—from 2 to 4 tablets as needed. Peptic ulcer or gastritis—from 2 to 4 tablets every two to four hours.

How Supplied: Creamalin Tablets, bottles of 50, 100, 200 and 1000. Also available: New Creamalin Liquid (1 teaspoon=1 tablet), bottles of 8 and 16 fl. oz.

References: **1.** Schwartz, I. R.: *Current Therap. Res.* 3:29, Feb., 1961. **2.** Beekman, S. M.: *J. Am. Pharm. A.* (Scient. Ed.) 49:191, April, 1960. **3.** Hinkel, E. T., Jr.; Fisher, M. P., and Tainter, M. L.: *J. Am. Pharm. A.* (Scient. Ed.) 48:381, July, 1959. **4.** Data in the files of the Department of Medical Research, Winthrop Laboratories. **5.** Hinkel, E. T., Jr.; Fisher, M. P., and Tainter, M. L.: *J. Am. Pharm. A.* (Scient. Ed.) 48:384, July, 1959.

Winthrop LABORATORIES
New York 18, N.Y.

FOR PEPTIC ULCER • GASTRITIS • GASTRIC HYPERACIDITY

COUNTY NEWS

Continued from page 394

school students with the cooperation of school authorities. Choice of topics is "Advantages of Private Medical Care" or "Advantages of the American Free Enterprise System Over Communism." A total of $125 in prizes will be given.

The contest is part of an annual state and national contest sponsored by the Association of American Physicians and Surgeons. Winning essays will be eligible for state and then national awards.

Madison

Thirty-two members of the Madison County Medical Society gathered to hear a program on European medical practice on Jan. 15.

Montgomery

A representative of the local welfare department discussed new welfare legislation at the Jan. 18 meeting of the Montgomery County Medical Society. Twenty-three members attended.

Owen-Monroe

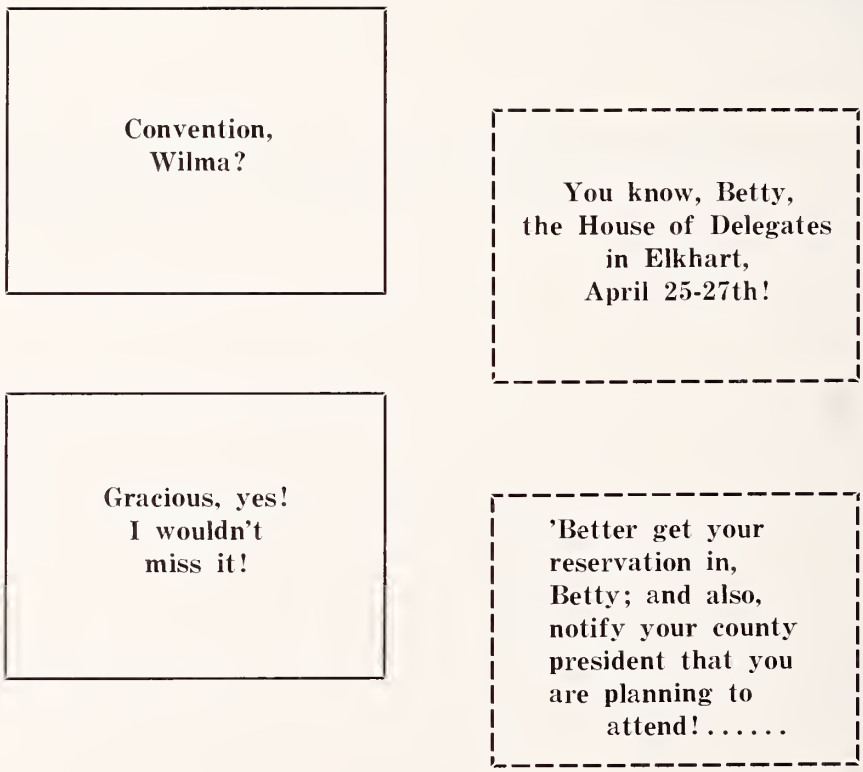
Dr. Eldred Hardtke discussed his recent trip to Europe, where he attended several medical meetings, at the Jan. 25 meeting of the Owen-Monroe Medical Society. Thirty-eight members were present.

Parke-Vermillion

Dr. J. W. Sommerville led an informal discussion at the Jan. 17 meeting of the Parke-Vermillion Medical Society. There were nine physicians present.

Wayne-Union

Speaker at the Jan. 9 meeting of the Wayne-Union Medical Society was Mr. Tom Huston of Indiana University. Eighty members heard him discuss "Welfare, Security, Freedom." ◄



The Woman's Auxiliary to the ISMA will hold their House of Delegates Convention April 25, 26 and 27 at the Hotel Elkhart, Elkhart.

Write today for reservations



Put your low-back patient back on the payroll

Soma relieves stiffness —stops pain, too

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, fast!

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

> Kestler reports in controlled study: *Average time for restoring patients to full activity: with Soma, 11.5 days; without Soma, 41 days.* (*J.A.M.A. Vol. 172, No. 18, April 30, 1960.*)

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets. **USUAL DOSAGE: 1 TABLET Q.I.D.**

The muscle relaxant with an independent pain-relieving action

SOMA®

(carisoprodol, Wallace)

Wallace Laboratories, Cranbury, New Jersey

Association News

EXECUTIVE COMMITTEE

January 13, 1962

Roll call showed the following present: Don E. Wood, M.D., chairman; Wendell E. Covalt, M.D.; Harry R. Stimson, M.D.; Maurice E. Glock, M.D.; John M. Paris, M.D.; Irvin W. Wilkens, M.D.; Charles F. Gillespie, M.D., and James A. Waggener, executive secretary.

Frank B. Ramsey, M.D., editor of *The Journal;* Robert Hollowell, attorney.

Ralph V. Everly, M.D., chairman, Building Committee.

Guests: Frank H. Green, M.D.; Mr. R. E. Bixby; Mr. George M. Lanigan, president, and Mr. L. C. Heustis, executive secretary, Indiana Pharmaceutical Association.

Membership Report

Number of members as of Dec. 31, 1960		4,310
1961 members as of Dec. 31, 1961:		
Full dues paying	3,683	
Residents and interns	198	
Council remitted	40	
Senior	376	
Honorary	3	
Military	38	
Total 1961 members as of Dec. 31, 1961		4,338
Number of members as of Dec. 31, 1960		4,310
Gain over last year		28
Number of AMA members as of Dec. 31, 1960		4,168
Total 1961 AMA members as of Dec. 31, 1961		4,215
Gain over last year		47
1961 AMA members: Dues paying	3,556	
Exempt, but active	659	
	4,215	
Number who have paid state dues but not AMA dues for 1961		123

Building Matters

Dr. Ralph Everly, chairman of the Building Committee, reported on construction progress of the new building and informed the committee that the contractor felt sure the building would be ready for occupancy in April.

Next discussed was the matter of financing the building. Report was made concerning the investigation on borrowing of money for this purpose. Drs. Paris and Glock moved that the treasurer be instructed to arrange a real estate mortgage or loan in the amount of $150,000.00, to be repaid in monthly installments over a period of five years at a rate not to exceed five percent. The motion was carried unanimously.

The attorney then brought out the fact that the Executive Committee should adopt a formal resolution which could be submitted to the institution making the loan. On motion of Drs. Paris and Glock the following formal resolution was adopted:

RESOLVED, That this Association arrange for and obtain a loan or a real estate mortgage loan upon its real estate located at 3935 North Meridian Street, Indianapolis, Indiana, in the amount of One Hundred and Fifty Thousand Dollars ($150,000.00), to be repaid on the installment plan over a period of five (5) years at not to exceed five percent (5%) interest, and the officers of this Association are instructed and authorized to arrange therefor and execute all papers therefor, including a note, or notes, and such mortgage, such note or notes to include prepayment privileges without penalty.

On motion of Drs. Paris and Glock and carried unanimously, the following resolution was also adopted:

IT IS FURTHER RESOLVED, That if necessary to obtain such loan or real estate mortgage loan upon the Association's real estate located at 3935 North Meridian Street, Indianapolis, Indiana, in the amount of One Hundred and Fifty Thousand Dollars ($150,000.00), to be repaid on the installment plan over a period of five (5) years at not to exceed five percent (5%) interest, the officers of this Association be and they are hereby authorized also to pledge government bonds of this Association as additional security therefor.

Headquarters Office

The secretary reported that the American Medical Association had allowed him $1,000.00 for the purpose of employment of some temporary help to carry on the educational work regarding the King-Anderson Bill.

The secretary presented a contract from Eli Lilly and Company in which it is proposed to give to the Association the sum of $300.00 to be used by the Association for the payment of honoraria and expenses of speakers at the 1962 annual convention in lieu of taking exhibit space. On motion of Drs. Glock and Stimson, acceptance of this proposal is to be discussed again at the next meeting of the Executive Committee. In the meantime Dr. Wood is to talk with officials of Eli Lilly and Company concerning this suggestion.

Report from the Medical Exhibitors Association on the reaction of the exhibitors to the 1961 annual meeting was presented for the information of the committee.

Medicare contracts. The secretary presented three sets of contracts on the Medicare program, one dealing with fair employment practices, one dealing with the settlement of the Special Bank Account No. 1 for the release fo $20,000.00 of securities of the Association, and the third dealing with the new reporting method required by the department. Upon motion of Drs. Paris and Covalt the president was authorized to sign these contracts when approved by the auditor and the attorney.

AMEF. It was noted from the AMEF cumulative report that Indiana ranked fifth among all of the states in contributions in 1961.

...WITH 'METHEDRINE' SHE CAN HAPPILY REFUSE!



Controls food craving, keeps the reducer happy — In obesity, "our drug of choice has been methedrine . . . because it produces the same central effect with about one-half the dose required with plain amphetamine, because the effect is more prolonged, and because undesirable peripheral effects are significantly minimized or entirely absent." Douglas, H. S.: West.J.Surg. 59:238 (May) 1951.

'METHEDRINE'®

brand Methamphetamine Hydrochloride

Supplied: Tablets 5 mg., scored. Bottles of 100 and 1000.

Literature available on request.

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York

Treasurer's Office

The treasurer presented the statement of Income and Expenses as of Dec. 31, 1961, and the auditor's quarterly report, both of which were approved by consent.

Legislative Matters

The chairman of the Commission on Legislation reported on H. R. 4222 and read a letter from the Pharmaceutical Manufacturers Association regarding the Kefauver-Celler bill, and following discussion of the letter and the bill, on motion of Dr. Stimson, taken by consent, it was agreed that any action on the Kefauver-Celler bill should be checked with the American Medical Association.

The chairman also reported the action taken by the American Hospital Association at its special House of Delegates meeting concerning health care of the aged.

Organization Matters

The secretary reported on the action taken by the committee at its previous meeting instructing him to obtain cost estimate on travel insurance which would cover the officers and members of the commissions and committees of the Association while traveling on business of the Association. He reviewed the plan which is in effect at the American Medical Association and then presented the quotation from The Travelers Insurance Company which would provide for death, dismemberment, loss of sight, weekly indemnity for total disability, and blanket medical expense with an aggregate limit of indemnity established at $500,000.00. Plan I would be worldwide coverage on a 24-hour basis while on business away from the insured's place of residence or employment, including in and out of city coverage. For a $50,000.00 limit per person the premium would be $430.00, for accidental death and dismemberment. If $100.00 weekly indemnity for total disability is to be included there would be an additional premium of $172.00 per year, and for blanket medical expense the premiums and the amounts were quoted as follows: $1,000.00—$96.00; $2,500.00—$140.00; $5,000.00—$183.00.

A similar plan was presented from the St. Paul Fire and Marine Insurance Company providing $50,000.00 accidental death for death or total dismemberment and including a $100.00 weekly indemnity for 52 weeks for an annual premium of $633.60. This company also quoted on a $100,000.00 accidental death policy with the same weekly indemnity for $1,161.00 annually. The question raised concerning this plan was whether or not it is 24-hour coverage.

By consent it was agreed that this matter would be deferred until the next meeting.

A resolution was read for the information of the committee from the Medical and Chirurgical Faculty of the State of Maryland suggesting that boards of medical examiners in the respective states be requested to give examinations in the field of ethics and proper socio-economic practices in their examinations for licensure of physicians. No action was taken on this matter.

The secretary read a letter from the AMA regarding the failure of the AMA to implement Indiana's resolution No. 13 as adopted at the Dallas meeting in December 1959.

Request of the Indiana Academy of General Practice to use the mailing list in notifying all members of the Indiana State Medical Association of the annual meeting of the Academy, to be held at French Lick on March 7 and 8, 1962, was approved on motion of Dr. Glock and taken by consent.

Indiana Health Careers: A motion directed to the Executive Committee by the Commission on Special Activities in which the Commission requested that the sum of $500.00 be contributed to Indiana Health Careers, Inc. was read and by consent it was disapproved for lack of funds in the budget.

The president read a letter from the president of the medical staff of the White County Memorial Hospital concerning the osteopathic situation, for the information of the committee.

A letter of criticism from Dr. Lloyd L. Hill, delegate from the Miami County Medical Society, concerning the "abbreviated report" of the House of Delegates regarding the action taken at the October meeting was read for the information of the committee.

An agreement, drawn by the attorneys and setting forth that the Professional Insurance Administrators as licensed agents for Continental Casualty Company were not to infer in selling a new plan of insurance to physicians that the plan had been approved or was sponsored by the Indiana State Medical Association, was reviewed by the committee. On motion of Drs. Glock and Covalt this matter was tabled.

The president reported on a conference he had had with Mr. Guy Spring, executive director of the Blue Cross Plan in the State of Indiana, concerning the action taken by the Council at its meeting in October on the 15-day reconfirmation plan.

New Business

Student Loan: Dr. Frank Green appeared before the committee with a representative of the Indiana National Bank and reported on what the bank would be willing to do with regard to taking over the paper on the Student Loan Plan. Dr. Green explained that the bank would be willing to act as collection agency for the Association at a fee of approximately one-half of one percent of the face value of the loan. It was explained that the Association after making the loan to the medical student would turn the paper over to the bank and the bank in turn would contact its correspondent bank in the community in which the physician began practice to follow up the collection of the loan. It could not be definitely stated what the total charge would be but it was estimated that the fee charged by the Indiana National Bank, plus the



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Each capsule contains:	
Vitamin B_1 (Thiamine Mononitrate)	10 mg.
Vitamin B_2 (Riboflavin)	10 mg.
Niacinamide	100 mg.
Vitamin C (Ascorbic Acid)	300 mg.
Vitamin B_6 (Pyridoxine HCl)	2 mg.
Vitamin B_{12} Crystalline	4 mcgm.
Calcium Pantothenate	20 mg.

Recommended intake: Adults, 1 capsule daily, or as directed by physician, for the treatment of vitamin deficiencies.

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fee charged by the correspondent bank, would approximate a total of 1 to 1½%. It was felt that the principle of this plan should be accepted at the present time, and upon motion of Drs. Glock and Covalt it was agreed that this entire matter should be referred to the Council for its action.

Special meeting of House of Delegates: The report of the attorneys concerning the action of the House of Delegates, taken in October 1961, requesting a special meeting of the House by February, 1962, was reviewed. It was tentatively suggested that if the new headquarters building was ready, the special meeting of the House of Delegates be held in that building on Sunday, April 29, with the Executive Committee and the Council meeting on April 28. This was a tentative recommendation and no definitive action was taken.

Executive Committee minutes. Dr. Paris moved that copies of the Executive Committee minutes be mailed not only to members of the Executive Committee but also to the Councilors of the Association. This motion was approved by consent.

Dr. Paris moved that the Association should pay the mileage expense of the members of the Council Liaison Committee to the Blue Shield meetings. Motion seconded by Dr. Glock and carried.

Mr. Lanigan, president, and Mr. Heustis, executive secretary, of the Indiana Pharmaceutical Association, appeared before the committee, soliciting the support of the Indiana State Medical Association in discouraging the use of mail order methods for the filling of prescriptions. They gave a comprehensive report concerning the actions of their association and the State Pharmacy Board on the program instituted by the Professional Pharmacy of Indianapolis for members of the Indiana State Teachers Association.

The Journal

The secretary read a letter from C. E. Pauley & Co,. Inc. informing the Association that as of Jan. 1, 1962 there would be an increase in printing charges for *The Journal.*

Dr. Ramsey and the committee discussed the deficit in *The Journal* funds due to a fall-off in advertising and upon motion of Drs. Paris and Stimson the Executive Committee authorized the allocation of an additional $3.00 of the dues to *The Journal*, making the total allocation $6.00 rather than $3.00, and directed that at the special meeting of the House of Delegates the delegates be requested to raise the dues to take care of this amount.

The secretary presented the proposed advertisements to be run in *The Journal* from the Central Soya Company on Phosphatide. Inasmuch as this advertising makes therapeutic claims for this product, it is to be submitted to the American Medical Association for evaluation before being accepted by *The Journal.*

Medical Defense

The secretary reported on the actions taken by the Executive Committee concerning reimbursements to physicians for cost of employing attorneys in medical defense cases and on motion of Drs. Glock and Stimson each case is to be considered by the Executive Committee as it arises as to the amount to be paid.

Future Meetings

Dr. Wood reported that the United States Chamber of Commerce is holding a Public Affairs Conference in Washington, D. C., on Jan. 24 and 25 and he thought it might be well for him and the secretary to attend this meeting. On motion of Drs. Covalt and Paris the decision was left to Dr. Wood.

Attention was called to the forthcoming Legislative Conference to be held by the American Medical Association in Chicago on January 26 and 27. By consent it was agreed that Dr. Wood, the executive secretary, the field staff, and Mr. Palmer should attend this meeting.

The Executive Committee approved sending a representative to the AMA Conference on Mental Health, to be held in Chicago, February 2 and 3. Selection of the delegate to this meeting is to be left to the chairman of the appropriate commission.

The committee approved sending a representative to the annual AMA Congress on Medical Education and Licensure, to be held in Chicago on February 3-6, 1962. The delegate to this meeting is to be selected by the chairman of the appropriate commission.

The invitation for a representative to attend the 1962 National Health Forum in Cleveland, March 20-22, 1962, was not accepted.

There being no further business the Committee adjourned to meet again on Saturday, February 10, at 6:00 p.m. at the I.U. Student Union Building, Indianapolis. ◄

THE COUNCIL

January 14, 1962

The Council of the Indiana State Medical Association convened for its midwinter meeting at 10:00 a.m. (EST), Sunday, January 14, 1962, in Room M-124, Indiana University Student Union Building, Indianapolis, with Dr. John M. Paris, chairman, presiding. Roll call showed the following present:

Councilors:

First District—William B. Challman, Mount Vernon (also AMA alternate delegate).
Second District—E. T. Edwards, Vincennes.
Third District—John M. Paris, New Albany (also AMA alternate delegate).
Donald M. Kerr, Bedford, alternate.
Fourth District—Joe M. Black, Seymour.

Fifth District—V. Earle Wiseman, Greencastle. A. W. Cavins, Terre Haute, alternate (also associate editor, *The Journal*).
Sixth District—William R. Tindall, Shelbyville. Frank Green, Rushville, alternate.
Seventh District—Ralph V. Everly, Indianapolis.
Eighth District—Gordon B. Wilder, Anderson.
Ninth District—Kenneth O. Neumann, Lafayette.
Tenth District—Ralph C. Eades, Valparaiso, alternate.
Eleventh District—E. S. Rifner, Van Buren.
Twelfth District—John Langohr, Columbia City.
Thirteenth District—Burton E. Kintner, Elkhart.

Officers:

Harry R. Stimson, Gary, president.
Maurice E. Glock, Fort Wayne, president-elect.
Irvin W. Wilkens, Indianapolis, treasurer.

Journal:

Frank B. Ramsey, Indianapolis, editor.

Executive Committee:

Don E. Wood, Indianapolis, chairman (also chairman, Commission on Legislation).
Wendell E. Covalt, Muncie, member.

Guests:

Harold C. Ochsner, Indianapolis, AMA delegate.
E. S. Jones, Hammond, AMA delegate.
Francis Land, Fort Wayne, AMA delegate.
Jack E. Shields, Brownstown, AMA delegate.
James H. Gosman, Indianapolis, AMA alternate delegate.
Robert M. Brown, Marion, AMA alternate delegate.
George W. Willison, Evansville, AMA alternate delegate.
A. C. Offutt, Indianapolis, State Health Commissioner.
Virgil C. McMahan, Vincennes, chairman, Commission on Convention Arrangements.
Nathan Salon, Fort Wayne, chairman, Commission on Aging.
William J. Stangle, Bloomington, chairman, Professional Advisory Committee of Blue Cross.

Staff:

Robert Hollowell, attorney.
Robert J. Amick, field secretary.
Howard Grindstaff, field secretary.
J. A. Waggener, executive secretary.

On motion of Drs. Everly and Neuman, minutes of the Council meetings held at Indianapolis on October 23 and 26, 1961, were approved as printed in the December 1961 issue of The Journal.

Reports of Councilors

The councilors announced, or confirmed, the following district meeting dates for 1962:

First District—Evansville, May 3, 1962.
Second District—Linton, June 6, 1962.
Third District—New Albany, May 16, 1962.
Fourth District—Batesville, May 2 or 16, 1962.
Fifth District—Terre Haute, April 25, 1962.
Sixth District—Connersville, May 10, 1962.
Seventh District—Danville, April 11, 1962.
Eighth District—Muncie, June 13, 1962.
Ninth District—Noblesville, May 17, 1962.
Tenth District—Valparaiso, May 9, 1962.
Eleventh District—Logansport, May 16, 1962.
Twelfth District—Fort Wayne, May 16, 1962.
Thirteenth District—September or October.

Jackson-Jennings County Medical Society: **On motion of Drs. Black and Wilder, the Council approved the consolidation of the Jackson and Jennigs County Medical Societies into one organization, to be known as the Jackson-Jennings County Medical Society, with the officers of the present Jackson County Medical Society acting as officers of the joint society.**

Dr. Neumann read a letter, addressed to Dr. Stimson, from the White County Memorial Hospital, concerning the admission of an osteopath to the staff of that hospital. Dr. Stimson will answer this letter.

The chairman announced that the AMA meeting will be held in Chicago June 24-29, 1962.

The chairman reminded the councilors that in accordance with the Bylaws programs for district meetings should be in the headquarters office 45 days in advance of the meetings to allow time for distribution to all district members 30 days prior to district meetings.

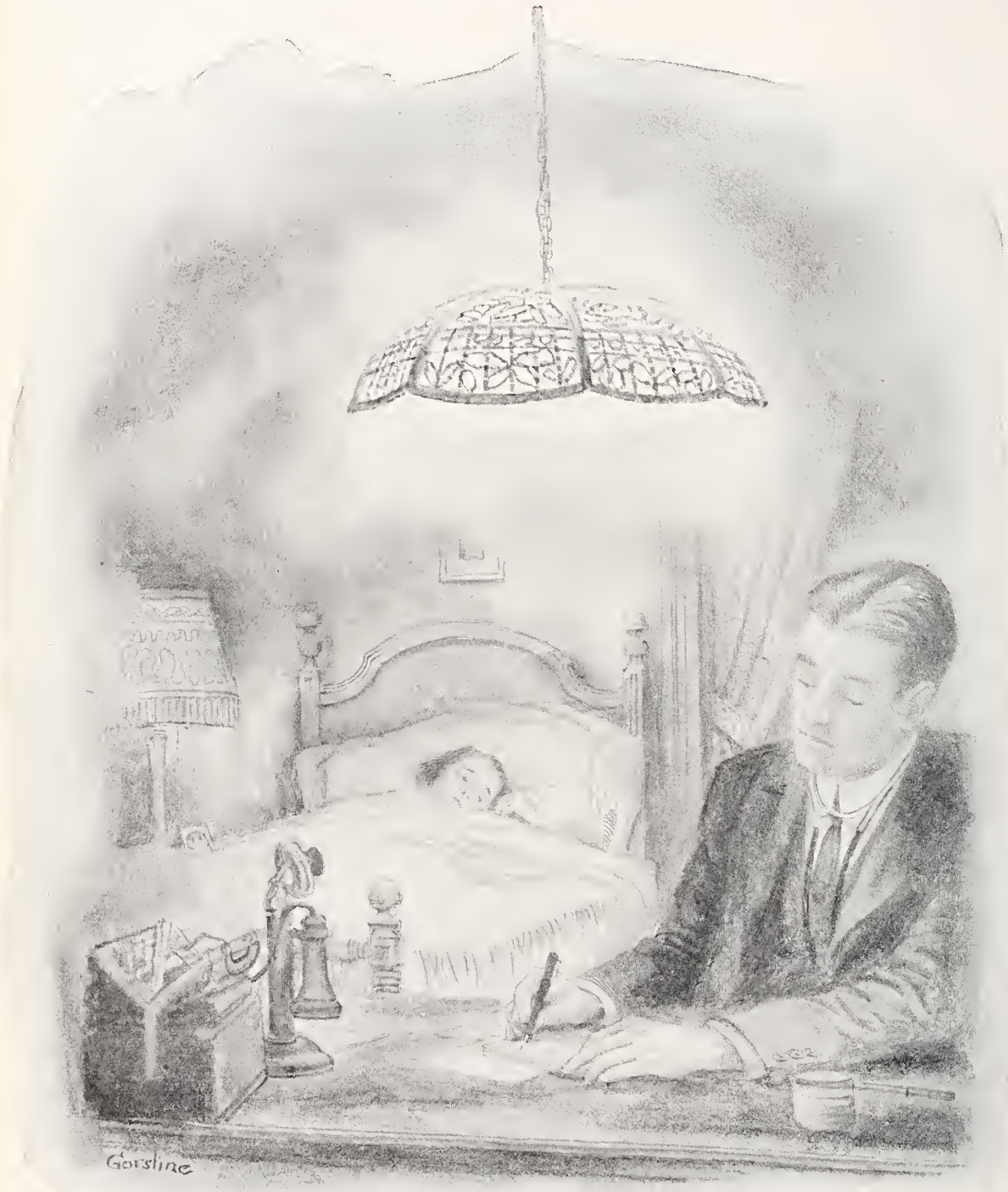
Reports of Officers

DR. HARRY R. STIMSON, president: The first thing I would like to report on is this special meeting of the House of Delegates. As you recall, the House last October agreed that we should have a special meeting of the House of Delegates in February. Now, in the first place, I understand this is illegal, the way it was done; however, before I go any further I think we still should have a House of Delegates meeting because it was the consensus that we should, and I am told that I can call a meeting of the House. I'm further informed that I can name the date for the House of Delegates meeting. Now, before I explain my reasons for wanting to postpone it I want to tell you I will not arbitrarily set a date that is not considerate with all the men here and particularly over the state. I would prefer having the House of Delegates meeting postponed until April, for a number of reasons. The principal reason is weather conditions. If we should call a meeting for a weekend like some we have had during the past six or eight weeks, our turnout would be poor—only those men who are particularly interested would be present.

The second reason, I would like to see a real turnout for our building dedication. We were told last night at the Executive Committee meeting that we would be in our building in April. I personally would like to see this all done on one weekend, that is, the dedication, House of Delegates meeting, and Council and Executive Committee meetings.

The third reason, I don't think it will make any difference timewise, as far as the question that we are to discuss, that is, this Blue Shield or insurance problem. Now, I will ask Doctor Paris to ask for some comments on that.

"The first prescription I ever wrote was for 'Empirin' with Codeine...



and it is still my stand-by for pain relief today."

PICTURE THE YOUNG DOCTOR with his first private patient, about thirty-five years ago. This is the moment, after years of study and guidance in classroom and at hospital bedside, when he assumes the full weight of responsibility for the well-being of his patient. He makes his diagnosis. The patient is in considerable pain, and his first concern is to relieve this discomfort. He writes a prescription for a new analgesic, a convenient drug combination that he believes will be of help. This patient (and many others to follow) finds gratifying relief, and the physician continues to rely upon this medication as the years go by.

Could this have been you in the 1920's? That was when 'Empirin' Compound with Codeine first came into general use (although plain 'Empirin' Compound has been well-known since the influenza epidemic of 1918). Satisfaction through the years has prompted doctors everywhere to depend on 'Empirin' with Codeine for relief of most all degrees of pain. For with this well-tolerated, reliable analgesic combination you can be sure of results, and feel secure in the fact that the liability of addiction is negligible.

Please accept our thanks for continuing to place your trust in a product that has been used more widely in medicine each year for the past four decades.

'EMPIRIN' COMPOUND with CODEINE PHOSPHATE*

Acetophenetidin, gr. 2½
Acetylsalicylic Acid, gr. 3½
Caffeine, gr. ½

Remember there are now four strengths available...

*Warning—May be habit-forming.
Subject to Federal Narcotic Regulations.

No. 1 — gr. ⅛
No. 2 — gr. ¼
No. 3 — gr. ½
No. 4 — gr. 1

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N. Y.

DR. KINTNER said his county would prefer to have a little time on this matter. "We need a clarification of the contract and we need to see how and why it is working in the other counties. It is too new."

DR. STIMSON: You should remember on this thing that you are not committing your groups to anything; all you are doing is giving Blue Shield the privilege of writing such a contract. . . . I understand the House of Delegates cannot, as a House of Delegates, call a meeting of the House. Is that not right?

The chairman announced that a House of Delegates meeting can be called by the president on petition of twenty delegates, or fifty members.

DR. STIMSON: Now the next thing I would like to speak of is the Blue Cross reconfirmation program. Last July this Council went on record as disapproving the arbitrary method by which Blue Cross put in this reconfirmation program and also, if I'm not mistaken, instructed the state association to inform the component societies of this decision.

I believe that at that time I was one of the ones who was accused of being the most belligerent about this thing. I still believe it was done arbitrarily and it wasn't done in the correct fashion. I could never, and I don't think any of us could, argue with the intent of the reconfirmation program. This has gone on now and there have been several meetings until we were informed at the November Executive Committee meeting that Blue Cross intended, and particularly in some areas, to stringently enforce this reconfirmation program. We wrote Mr. Spring, executive vice-president of Blue Cross, a letter and it was a rather strong letter. Shortly after that I received a telephone call, shortly before Denver, from Mr. Spring and he asked to come to Gary to talk to me and I told him that I would be glad to but I was going to Denver and he would have to wait until I came back.

So the week-end of the Indiana Society at Chicago, the dinner on Saturday night, he came out to Gary and he met three or four hours with me that day. I told him the way we still felt about it and I told him before I would talk to him at all that he would have to promise me that there would be no enforcement of this in any part of the state until the Council meeting—until the Council had had an opportunity to express its opinion. That was promised, but of course any promise he made was contingent on his board accepting it—which met five days later—and also anything I said was contingent on this Council. I was not speaking for the State Medical Association, only as a member.

Now, first thing we ironed out was that the long form that they first considered had been discarded in most areas, but there were a few hospitals in the state still using that long form. It has been shortened tremendously and I think most of you are acquainted with that shortened form.

The second thing—we both agreed that the physician members of the Blue Cross Board of Directors are doing a wonderful job. We agreed that Blue Cross Board should continue to nominate them. They are appointed every year, it would be disastrous to change them for the whim of some group or groups, to decide to change them all at one time, because of the type of work they do. They would be nominated, you might say, by the Blue Cross Board of Directors and it would be confirmed by the Council. In other words they would name them, but if we had any particular reason our Council could negate that person. Chances are we never would; we certainly have nothing against any of the members who are on the board now. That was agreed. Mr. Spring came up with the idea of putting a sixth man on the Board of Directors, and for that sixth man he suggested the president, or an officer. I told him I didn't believe that should be done because I don't think the Council would go for that—I personally don't want that to be done. However, I did tell him that it would be a good thing, in my opinion, for the Council to name a man from this group to represent the State Association directly; I don't mean to say that these gentlemen don't represent the State Association, but to represent the State Association as a liaison member. That was accepted.

As you can see Doctor Stangle is here today. They have already started, they have named a liaison member, a chairman they call it, and an alternate and a second alternate. Therefore, there will always be someone here at each Council meeting from Blue Cross.

I think this was an unfortunate thing to have happen. I believe the smoke has been cleared. I think we have accomplished what we wanted to accomplish, that is, the establishment of better relationship for better communications between Blue Cross and the Indiana State Medical Association. I think all of this occurred probably because of the lack of communications. We had no communications with Blue Cross.

One more thing. With this resolution that we passed last July on the books, we don't have to approve of this plan, but I would like to see this resolution rescinded as I don't think we should instruct our members not to sign the reconfirmation form and that is what the original resolution calls for.

I talked to one member here this morning and I think he will voice his opinion and I hope he does, that he is a little bewildered that the State Association has not informed each county, since last July, of the action and they were not informed I'm sure. I would like to see that rescinded and another resolution passed if you wish.

I will set the date for the House of Delegates meeting with the approval of the Executive Committee. I won't do it arbitrarily, I will check these dates but I still feel that we will set the

meeting for the 29th and we will go to Washington that night.

Blue Cross reconfirmation was discussed at this time by Drs. Paris, Edwards, Glock, Wood, Rifner, and Brown.

DR. IRVIN W. WILKENS, treasurer, reported on the financial condition of the Association, saying it is still in the black, and presented the annual audit of Wolf and Company, certified public accountants, for the period from Oct. 1, 1960, to Sept. 30, 1961, which follows:

The Council
Indiana State Medical Association
Indianapolis, Indiana
Gentlemen:

We have examined the balance sheet of Indiana State Medical Association as of Sept. 30, 1961, and the related statements of fund surplus and revenue and expenditures for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying balance sheet and statements of fund surplus and revenue and expenditures present fairly the position of Indiana State Medical Association at Sept. 30, 1961, and the results of its operations for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Respectfully submitted,
Wolf and Company
Certified Public Accountants

Indianapolis, Indiana
Oct. 10, 1961

INDIANA STATE MEDICAL ASSOCIATION

Indianapolis, Indiana

Exhibit A

BALANCE SHEETS
September 30, 1961

ASSETS

General fund:		
Cash		30,800.83
Note receivable		1,124.06
Inventory—tape recorder		496.54
Deposits with postmaster		607.05
Prepaid expenses		289.55
Accrued interest receivable		1,535.83
Receivable from other funds:		
Medical defense fund	38.21	
Student loan fund	25,000.00	
The Journal	246.43	25,284.64
Reimbursement due for Medicare expenses		1,277.39
Investment in United States obligations at cost, less amortization (Note 1):		
Treasury bonds	138,536.17	
Treasury notes	15,000.00	
Savings bonds	76,000.00	
	229,536.17	
Less accumulated amortization	375.94	229,160.23
Savings and loan association shares		30,400.64
Office furniture and equipment:		
General office	18,062.49	
Medicare office	4,437.52	
	22,500.01	
Less accumulated depreciation	9,772.74	12,727.27	333,704.03
The Journal:		
Cash		1,883.72
Accounts receivable:		
Advertising	8,141.86	
Other	21.53	8,163.39
General fund		2,753.57
Postal deposit		203.09	13,003.77
Medical defense fund:		
Cash		4,055.80
Accrued interest receivable		155.55
Investments, at cost less amortization:		
U. S. Treasury bonds	14,275.08	
U. S. Savings bonds	9,000.00	
U. S. Treasury bills	2,981.10	
	26,256.18	
Less accumulated amortization	179.26	26,076.92	30,288.27
(carried forward)			376,996.07
Student loan fund:		
Cash		1,539.46
Notes receivable		39,026.00	40,565.46
Building fund:		
Cash		58,713.63
Land		65,700.60
Construction in process (Note 2)		14,907.90	139,322.13
Medicare fund:		
Cash		24,756.98
Recoverable payments made to doctors		25,243.02	50,000.00
			606,883.66

LIABILITIES

General fund:		
Liabilities:		
Accounts payable	763.08	
Accrued Payroll taxes	107.67	
Payable to other funds:		
The Journal	3,000.00	
American Medical Education Fund	36,630.00	
Deferred income—exhibitors' deposits	18,985.00	
Dues collected in advance	46,628.25	
Deposits on tape recordings	309.50	
	106,423.50	
Fund surplus (Exhibit 8)	227,280.53	
		333,704.03

The Journal:		
Liabilities:		
Accounts payable and accrued expenses	666.00	
Prepaid professional cards	2,186.73	
	2,852.73	
Fund surplus (Exhibit 8)	10,151.04	
		13,003.77
Medical defense fund:		
Due to the general fund	38.21	
Fund surplus (Exhibit B)	30,250.06	
		30,288.27
Student loan fund:		
Due to general fund	25,000.00	
Fund surplus (Exhibit 8)	15,565.46	40,565.46
Building fund:		
Liabilities:		
Loans from members	24,650.00	
Tax reserve	155.73	
	24,805.73	
Fund surplus (Exhibit 8)	114,516.40	139,322.13
Medicare fund:		
Funds advanced by U. S. Government (Note 3)	50,000.00	50,000.00
		606,883.66

Notes:

1. General fund investments in U. S. Treasury securities aggregating $143,000.00 have been allocated to the building fund.
2. The association has a contractural liability amounting to $276,000.00 for completion of the building under construction.
3. General fund investment in U. S. Treasury bonds and notes in the principal amount of $40,000.00 are held in escrow by the U. S. Government to secure funds advanced for the Medicare program.

STATEMENT OF FUND SURPLUS

Exhibit B

For the Year Ended September 30, 1961

General Fund:		
Balance, Sept. 30, 1960		252,111.51
Allocation of prior year's dues to building fund by order of executive committee not charged against operations previously		18,075.00
Adjusted balance, Sept. 30, 1960		234,036.51
Excess of revenues over expenditures (Exhibit C)	244.02	
Proceeds of matured bonds transfered to building fund	7,000.00	6,755.98
Balance, Sept. 30, 1961		227,280.53
The Journal:		
Balance, Sept. 30, 1960		23,009.46
Excess of expenditures over revenues (Exhibit D)		12,858.42
Balance, Sept. 30, 1961		10,151.04
Medical defense fund:		
Balance, Sept. 30, 1960		27,684.72
Excess of revenues over expenditures (Exhibit E)		2,565.34
Balance, Sept. 30, 1961		30,250.06
Student loan fund:		
Balance, Sept. 30, 1960		15,488.89
Interest earned		76.57
Balance, Sept. 30, 1961		15,565.46
Building fund:		
Allocation of prior year dues		18,075.00
Revenue:		
Dues allocated		18,395.00
Donations from members		70,690.00
Special donations		356.40
Proceeds of matured bonds transferred from general fund		7,000.00
Balance, Sept. 30, 1961		114,516.40

STATEMENT OF REVENUES AND EXPENDITURES

Exhibit C

For the Year Ended September 30, 1961

GENERAL FUND

	Actual	Budget	Actual Over (Under*) Budget
Revenues:			
Dues	185,188.75	182,910.00	2,278.75
Less dues allocated:			
The Journal	11,748.00	11,469.00	279.00
Medical defense fund	4,926.50	4,778.75	147.75
American Medical Education Fund	36,630.00	36,170.00	460.00
Building fund	18,395.00	18,085.00	310.00
	71,699.50	70,502.75	1,196.75
Dues available for operations	113,489.25	112,407.25	1,082.00
Interest on investments	6,883.33	7,500.00	616.67*
Received from A.M.A.	883.99	1,000.00	116.01*
Net income (expense**)—annual meeting	1,501.21**	2,000.00	3,501.21*
Other income	209.19		209.19
Total revenues	119,964.55	122,907.25	2,942.70*
Expenditures:			
Committees and commissions (Schedule C-1)	17,298.48	19,600.00	2,301.52*
Officers and council (Schedule C-2)	14,700.66	15,050.00	349.34*
Headquarters office (Schedule C-3)	78,702.71	81,025.00	2,322.29*
Woman's Auxiliary	1,794.09	2,665.00	870.91*
Donations	110.00	500.00	390.00*
Employes' retirement fund	7,114.59	6,500.00	614.59
Total expenditures	119,720.53	125,340.00	5,619.47*
Excess of revenues over expenditures (expenditures over revenues*)	244.02	2,432.75*	2,676.77

STATEMENT OF OPERATING EXPENDITURES

Schedule C-1

For the Year Ended September 30, 1961

COMMITTEES AND COMMISSIONS

	Actual	Budget	Actual Over (Under*) Budget
Standing committees:			
Grievance	508.70	350.00	158.70
Student loan	82.65	100.00	17.35*
Medical legal review		50.00	50.00*
Commissions:			
Constitution and by-laws	125.90	500.00	374.10*
Interprofesional relations	109.20	300.00	190.80*
Legislation	6,779.12	7,000.00	220.88*
Public health	827.15	1,000.00	172.85*
Public information	2,074.63	2,500.00	425.37*

Special activities	492.75	200.00	292.75
Valuntary health agencies	878.70	800.00	78.70
Medical ecanamics and insurance	848.55	1,500.00	651.45*
Medical educatian and licensure	2,561.10	1,700.00	861.10
Building	1,014.07	2,000.00	985.93*
Gavernment medical services	542.01	1,000.00	457.99*
Aging	453.95	600.00	146.05*
Total	17,298.48	19,600.00	2,301.52*

Schedule C-2

OFFICERS AND COUNCIL

	Actual	Budget	Actual Over (Under*) Budget
President	1,344.92	1,500.00	155.08*
President elect	208.00	500.00	292.00*
Council chairman	321.40	300.00	21.40
A.M.A. delegates	4,170.57	4,000.00	170.57
A.M.A. meetings	2,371.01	2,000.00	371.01
Treasurer, auditing and accaunting	1,375.00	1,500.00	125.00*
Council travel	1,242.90	1,000.00	242.90
Council meetings	689.10	1,000.00	310.90*
Better Business Bureau	150.00	150.00	
Chamber af Cammerce	1,000.00	1,000.00	
Executive committee meetings	279.81	600.00	320.19*
Executive cammittee Travel	1,547.95	1,550.00	47.95
Total	14,700.66	15,050.00	349.34*

Schedule C-3

HEADQUARTERS OFFICE

	Actual	Budget	Actual Over (Under*) Budget
Salaries	49,004.90	50,000.00	995.10*
Supplies	2,141.31	2,000.00	141.31
Telephone and telegraph	3,700.15	3,500.00	200.15
Postage	2,698.49	2,500.00	198.49
Printing and statianery	1,637.99	1,200.00	437.99
Travel	8,440.10	9,000.00	559.90*
Rent and electricity	4,278.68	4,400.00	121.32*
Organizatian memberships	471.60	400.00	71.60
Insurance:			
Hospitalizatian	848.08	800.00	48.08
Other	1,259.64	1,700.00	440.36*
Photographic equipment expense		25.00	25.00*
Extra help	321.66	1,000.00	678.34*
Payroll taxes	1,201.22	1,100.00	101.22
Depreciatian	2,139.49	2,000.00	139.49
Maintenance—affice machines	425.75	400.00	25.75
Unallacated	133.65	1,000.00	866.35*
Totals	78,702.71	81,025.00	2,322.29*

STATEMENT OF REVENUE AND EXPENDITURES

Exhibit D

For the Year Ended September 30, 1961

THE JOURNAL

	Actual	Budget	Actual Over (Under*) Budget
Revenues:			
Subscriptians:			
Members	11,748.00	11,469.00	279.00
Nanmembers	344.00	431.00	87.00*
Advertising	48,824.26	65,000.00	16,175.74*
Other	3,594.15	1,100.00	2,494.15
Total revenues	64,510.41	78,000.00	13,489.59*
Expenditures:			
Salaries (including extra help)	12,826.76	13,000.00	173.24*
Office expense	456.85	500.00	43.15*
Printing and reprints	53,563.37	58,000.00	4,436.63*
Engravings	4,258.75	5,000.00	741.25*
Travel and meetings	1,511.80	1,800.00	288.20*
Bulk mailing	1,089.07	1,100.00	10.93*
Other publishing expense	443.26	1,200.00	756.74*
Payroll taxes	411.24	400.00	11.24
Emplaye group insurance	130.32	126.00	4.32
Rent and electrcity	2,179.77	2,150.00	29.77
Telephone and Telegraph	210.61	300.00	89.39*
Dues and memberships	30.00	50.00	20.00*
Prizes	225.00	225.00	
Unallacated	32.03	240.00	207.97*
Total expenditures	77,368.83	84,091.00	6,722.17*
Excess af expenditures over revenues	12,858.42	6,091.00	6,767.42

STATEMENT OF REVENUES AND EXPENDITURES

Exhibit E

For the Year Ended September 30, 1961

MEDICAL DEFENSE FUND

Revenues:		
Transfer of applicable partian of dues	4,926.50	
Interest earned—U. S. Treasury bands	685.82	
Amartizatian af discaunt—U. S. Treasury bands	43.02	
Total revenues		5,655.34
Expenditures:		
Malpractice fees	300.00	
Legal fees	2,790.00	
Total expenditures		3,090.00
Excess af revenues aver expenditures		2,565.34

Exhibit F

STUDENT LOAN FUND

Cash balance, Sept. 30, 1960		2,065.23
Revenues:		
Callectian of student laans	2,268.95	
Interest earned	76.57	
Advances fram general fund	19,898.71	22,244.23
		24,309.46
Expenditures—laans ta students		22,770.00
Cash balance, Sept. 30, 1961		1,539.46

Dr. Wilkens discussed borrowing money to finance the building program. The chairman announced that the Executive Committee recommends that the Association obtain a five-year mortgage loan in the amount of $150,000.00 at 5%. **On motion of Dr. Stimson, seconded by many, the following resolution, drawn by the attorney of the Association, was adopted:**

RESOLVED, That this Association arrange for and obtain a loan or a real estate mortgage loan upon its real estate located at 3935 North Meridian Street, Indianapolis, Indiana, in the amount of One Hundred and Fifty Thousand Dollars ($150,000.00),

to be repaid on the installment plan over a period of five (5) years at not to exceed five percent (5%) interest, and the officers of this Association are instructed and authorized to arrange therefor and execute all papers therefor, including a note, or notes, and such mortgage, such note or notes to include prepayment privileges without penalty.

The following addendum to the above resolution was adopted on motion of Dr. Black, seconded by many:

IT IS FURTHER RESOLVED, That if necessary to obtain such loan or real estate mortgage loan upon the Association's real estate located at 3935 North Meridian Street, Indianapolis, Indiana, in the amount of One Hundred and Fifty Thousand Dollars ($150,000.00), to be repaid on the installment plan over a period of five (5) years at not to exceed five percent (5%) interest, the officers of this Association be and they are hereby authorized also to pledge government bonds held by this Association as additional security therefor.

DR. FRANK B. RAMSEY, editor of *The Journal*, discussed the deficit accruing in *The Journal* funds due to a decrease in advertising and an increase in printing costs, and proposed an increase in the amount *The Journal* receives from membership dues. This was discussed by Drs. Eades and Stimson and Mr. Hollowell.

On motion of Drs. Eades and Edwards the Council voted to increase the subscription fee of THE JOURNAL from $3.00 to $6.00 per year, this fee to apply to all member subscriptions, including senior members.

DELEGATES TO THE AMA: Dr. Stimson reported that the delegation to the Denver clinical session, held Nov. 27-Dec. 1, 1961, consisted of five delegates and four alternate delegates, plus Dr. Lester Bibler from the General Practice group and Dr. Lall Montgomery from the Pathology group. (For complete report on the actions taken by the AMA House of Delegates at this meeting, see *Journal*, April 1962.)

Unfinished Business

1. *Building Committee:* Dr. RALPH EVERLY, chairman, reported that construction of the building continues to progress at a steady pace and the expected date of occupancy is still April 1962. As of January 7, it was 40% complete.

2. *Student Loan Fund:* In the absence of Dr. James Ritchey, chairman, Dr. Wilkens reported that the fund had a balance of $304.00, and some promises for repayments in the near future.

DR. FRANK GREEN, pursuant to the action taken by the House of Delegates in October 1961, reported that he had investigated the possibility of turning over the collection of student loan funds to the banking industry and that an Indianapolis bank had agreed to handle this fund for a fee of approximately one-tenth of one percent of the face value of the loan. The Association would simply deposit the notes from the student loans with the bank for collection and the bank, with connections with banks throughout the United States, would send the notes to the local banks where the physicians holding the notes are located. The fact that the local banks were handling collections probably would be persuasive in inducing payments as these physicians would be anxious to keep their credit good in the local community.

The total fee, covering the charge by the Indianapolis bank, plus the fee of the correspondent bank, would not exceed one percent. The interest collected on the loans would more than pay for the handling of the loans by the bank.

The Committee on Student Loan would still handle the lending of the money from the Student Loan Fund.

On motion of Dr. Edwards, seconded by several, the Council approved the principle of the plan as presented by Dr. Green, and the bank is to be asked to send a written statement to the Committee on Student Loan covering the details of the plan, for presentation to the Council at its next meeting.

3. *Medical Care for Military Dependents:* The secretary reported that the only thing new in this department is that the government has notified him that the cost of processing claims in Indiana is too high.

4. *Liaison Committee between Council and Blue Shield*, consisting of Drs. Neumann, chairman, Black, Edwards and Kintner, reported that they would be meeting with Blue Shield on Sunday, Jan. 21, 1962.

5. *Blue Shield Board member at large.* **On motion of Drs. Everly and Eades, Dr. William Harry Howard, Hammond, who was nominated at the October 1961 meeting of the Council, was elected to succeed himself for the three-year term ending March, 1965.**

6. *Resolution No. 26*, introduced in the House of Delegates in October, 1961, concerning non-indemnity type insurance to be offered by Blue Shield, was discussed by Drs. Neumann, Stimson, Edwards, Glock, Wood, Rifner, Brown and Kintner. No action was taken.

7. *Blue Cross reconfirmation procedure.* Dr. Glock read from the minutes of the July 1961 Council meeting, at which time the Council "went on record as endorsing the recommendations of the Executive Committee, that is, that the physicians of Indiana do not participate in the reconfirmation procedure program proposed by Blue Cross."

The reconfirmation program was discussed by Drs. Wilder, Neumann and Stimson.

DR. WILLIAM J. STANGLE, chairman, Professional Advisory Committee of Blue Cross, stated that Indiana is the seventh state to take up this procedure, and presented statistics showing that since adoption of the program there has been a saving of 10,021 hospital days, with a saving in excess of $250,000.00, based on the average medical day cost to Blue Cross of $26.21.

Following further discussion by Drs. Challman, Stangle, Eades, and Mr. Hollowell, **Dr. Stimson moved, seconded by Dr. Edwards, that the Council**

(1) Rescind the action of the Council at its July 1961 meeting regarding the Blue Cross reconfirmation policy;

(2) Leave it to each physician's discretion as to whether or not he signs the reconfirmation forms, and

(3) Emphasize its opposition to unneccessary hospitalization.

The above motion was discussed by Drs. Neumann, Edwards, Eades and Challman. **Dr. Challman then moved that this motion be tabled until a written legal opinion can be obtained on whether or not doctors make themselves liable to pay the hospital bill, if it can be determined later that the hospitalization is unnecessary, if he so signs a reconfirmation slip. Motion seconded by Dr. Eades and carried.**

1962 Annual Convention, French Lick October 6 to 10, 1962

DR. VIRGIL C. McMAHAN, chairman of the Commission on Convention Arrangements, presented the following tentative program, which **the Council approved on motion of Drs. Stimson, Eades and Edwards:**

Saturday, October 6, 1962

Council meeting.

6:00 p.m. Meeting of House of Delegates.

Sunday, October 7, 1962

9:00 a.m. Reference Committee meetings.

Monday, October 8, 1962

8:00 a.m. Second meeting of House of Delegates. Consideration of Reference Committee reports and discussion of any further business.

Annual golf tournament.

Annual trap-skeet shoot.

1:00 p.m. Section meetings.

8:00 p.m. General meeting. "Compensable Medical and Surgical Conditions under Indiana Law."

Panel discussion with outstanding attorneys and physicians forming the panel.

Tuesday, October 9, 1962

9:00 a.m. to
5:00 p.m. Scientific meeting.

6:00 p.m. Cocktail hour.

7:00 p.m. President's dinner.

Wednesday, October 10, 1962

Meeting of interest to physicians and their wives.

1:00 p.m. Final meeting of House of Delegates. Election of officers and completion of unfinished business.

The recommendation of the Commission on Convention Arrangements that the Council meet at least two weeks prior to the annual convention to formulate any resolutions that it feels necessary so that these resolutions may be distributed and discussed by the component county medical societies in advance of the House of Delegates' first meeting was discussed by Drs. Stimson, Edwards, McMahan and Challman. **It was the consensus that this matter should be left to the discretion of the Council.**

Legislative Matters

Dr. DON E. WOOD, chairman of the Commission on Legislation, announced that his Commission would meet in February, at which time the following matters would be discussed:

(1) *Implementation of the Kerr-Mills bill.* Dr. Wood asked that every effort be made, in discussing this particular type of legislation, to differentiate between "the chronically ill" and "old age." "There is a distinct difference. A young person can be chronically ill and certainly would not be a candidate for old age benefits.

"I would like to suggest to you every time someone talks to you about federal funds, just change the words and put 'tax dollars'. Let's talk about tax dollars, instead of talking about federal funds."

(2) *The Corporate Practice Act.* "The Commission has invited the several clinic groups in the state and other interested persons to attend the February meeting to present their ideas in the formulation of any law that we might present to the House of Delegates for approval and for implementation in the coming legislature."

(3) *The role of the ophthalmologist.*

(4) *Physicians on Board of Directors of County hospitals.*

(5) *Motor vehicle problems*—national program, seat belts.

On the national level, Dr. Wood also spoke on:

(1) *The Woman's Auxiliary WHAM Campaign* (Women Help American Medicine), headed in Indiana by Mrs. Burton Kintner.

(2) *The AMA Legislative Conference* to be held in Chicago, Jan. 26 and 27, and to be attended by several members of the Association, the executive secretary, and the field secretaries.

(3) *H. R. 4222*, the King-Anderson Bill.

Economic and Organization Matters

1. *1961 membership report by districts*, as follows, was presented:

Membership Report

INDIANA STATE MEDICAL ASSOCIATION

DECEMBER 31, 1961

DISTRICT	Members ISMA	# Delegates 1962 Session	Members AMA	Gain or Loss Over 1960 ISMA	Gain or Loss Over 1960 AMA	Removed from ISMA Non-Payment	Removed from ISMA Deaths	Non-Members Non-Elig.	Non-Members Elig.
1st District									
Gibson	15	1	14	—2	—3		1		
Perry	13	1	13	+1	+1		1		

DISTRICT	Members ISMA	# Delegates 1962 Session	AMA	Gain or Loss Over 1960 ISMA	AMA	Removed from ISMA Non-Payment	Deaths	Non-Members Elig.	Non-Elig.
Pike	4	1	4	—1	—1				
Posey	11	1	11	—	—		1		
Spencer	6	1	5	—	—			1	
Vanderburgh	233	5	226	+19	+20		2	8	1
Warrick	12	1	13	—	—1			2	
Total	294	11	286	+17	+16		5	11	1
2nd District									
Daviess-Martin	20	2	19	—2	—2			1	
Greene	16	1	8	—	—				
Knox	43	1	41	—	—		1		
Owen-Monroe	53	2	51	—1	—1			6	
Sullivan	16	1	14	—	—				
Total	148	7	133	—3	—3		1	7	
3rd District									
Clark	33	1	33	—	—			4	
Dubois	23	1	20	+1	+1			1	
Floyd	40	1	40	+2	+2				
Harrison-Crawford	14	2	14	—	—				
Lawrence	28	1	26	+1	+1		2	1	
Orange	9	1	9	—1	—1				
Scott	3	1	3	—1	—1		1	1	
Washington	7	1	7	—	—				
Total	157	9	152	+2	+2		3	7	
4th District									
Bartholomew-Brown	44	2	43	+6	+6		1	2	
Dearborn-Ohio	19	2	18	—	—				1
Decatur	12	1	9	—1	+1				
Jackson	17	1	14	—3	—3				
Jefferson-Switzerland	28	2	26	+4	+3		2		
Jennings	9	1	7	—	—		2	3	
Ripley	9	1	7	—	+1	1		1	
Total	138	10	124	+6	+8	1	5	6	1
5th District									
Clay	12	1	12	—2	—2	1	1		
Parke-Vermillion	23	2	23	—1	—1	1		1	
Putnam	16	1	16	—	—				
Vigo	116	2	117	—4	—3	1	5	2	
Total	167	6	168	—7	—6	3	6	3	

DISTRICT	Members ISMA	# Delegates 1962 Session	AMA	Gain or Loss Over 1960 ISMA	AMA	Removed from ISMA Non-Payment	Deaths	Non-Members Elig.	Non-Elig.
6th District									
Fayette-Franklin	18	2	18	—1	+1				
Hancock	21	1	21	—1	—1				
Henry	46	1	46	+2	+3			1	
Rush	15	1	15	—1	—1				
Shelby	18	1	18	—	—	1		2	
Wayne-Union	75	2	69	—2	—3		5	1	2
Total	193	8	187	—3	—1	1	5	4	2
7th District									
Hendricks	19	1	19	—2	—2		1		1
Johnson	33	1	33						
Marion	1078	22	1075	+4	+3	2	18	45	5
Morgan	16	1	16	—1	—1		1	1	
Total	1146	25	1143	+1	—	2	20	46	6
8th District									
Delaware-Blackford	116	3	111	+6	+4		1	2	1
Jay	16	1	14	—	—1		1	1	
Madison	105	2	101	—3	—1	4	2	2	1
Randolph	22	1	16	—1	—4				
Total	259	7	242	+2	—2	4	4	5	2
9th District									
Benton	10	1	9	+1	+1				
Boone	18	1	19	—2	—2		1	2	
Clinton	20	1	20	—	+1				
Fountain-Warren	16	2	16	+1	+1				
Hamilton	24	1	16	—	—1				
Montgomery	29	1	29	—1	—1	1	2	3	
Tippecanoe	114	2	115	+6	+7		2	2	
Tipton	11	1	11	—	—				
White	11	1	11	—	—				1
Total	253	11	246	+5	+6	1	5	7	1
10th District									
Jasper-Newton	12	2	12	—2	—2				
Lake	426	9	396	+10	+25	3	4	11	3
Porter	28	1	28	+3	+3			2	
Total	466	12	436	+11	+26	3	4	13	3
11th District									
Carroll	10	1	10	—	—				
Cass	42	1	41	—	—				2
Grant	67	1	66	+2	+1			5	

DISTRICT	Members ISMA	* Delegates 1962 Session	AMA	Gain or Loss Over 1960 ISMA	AMA	Removed from ISMA Non-Payment	Deaths	Non-Members Elig.	Non-Elig.
Howard	55	1	55	+2	+3		1	1	1
Huntington	23	1	22	+1	+1		1	1	1
Miami	15	1	15	—6	—4	4		3	1
Wabash	25	1	22	+1	+1		2		1
Total	237	7	231	—	+2	4	4	10	6
12th District									
Adams	15	1	15	—	+1				
Allen	268	5	267	+4	+4		5	8	1
DeKalb	22	1	19	+2	+1			2	
LaGrange	9	1	8	+1	—				
Noble	18	1	17	—2	—1		2		
Steuben	15	1	15	+2	+2			2	
Wells	30	1	30	—3	—4		1	1	
Whitley	17	1	17						
Total	394	12	388	+4	+3		8	13	1
13th District									
Elkhart	105	2	102	—2	—1	1		4	
Fulton	9	1	9	—1	—1			1	
Kosciusko	17	1	17	—	—		2	1	
LaPorte	95	2	93	+3	+4		2	2	
Marshall	22	1	22	—1	—	1	2		
Pulaski	7	1	6	—1	—1				
St. Joseph	227	5	226	—4	—5	3	3	6	1
Starke	6	1	6						
Total	488	14	481	—6	—4	5	9	14	1
SUMMARY									
1st District	294	11	286	+17	+16		5	11	1
2nd District	148	7	133	—3	—3		1	7	
3rd District	157	9	152	+2	+2		3	7	
4th District	138	10	124	+6	+8	1	5	6	1
5th District	167	6	168	—7	—6	3	6	3	
6th District	193	8	187	—3	—1	1	5	4	2
7th District	1146	25	1143	+1	—	2	20	46	6
8th District	259	7	242	+2	—2	4	4	5	2
9th District	253	11	246	+5	+6	1	5	7	1
10th District	466	12	436	+11	+26	3	4	13	3
11th District	237	7	231	—	+2	4	4	10	6
12th District	394	12	388	+4	+3		8	13	1
13th District	488	14	481	—6	—4	5	9	14	1
Total	4340	139	4215	+29	+48	24	79	146	24

* Includes 50 full dues paying members who are out of the state.

2. *Remission of state dues.* The Council voted the remission of state due as follows:

Allen county—One member, who has retired and left the state, on motion of Dr. Langohr, and taken by consent.

Marion County—Two members, one due to serious illness, and one who has retired, by consent, on motion of Dr. Everly.

Wayne-Union—One member, due to retirement, on motion of Drs. Tindall and Eades.

New Business

1. *Matters referred to Council by Executive Committee:*

a. Budget for the fiscal year 1961-1962 was approved on motion of Drs. Edwards and Wilder.

Dr. Eades discussed the budget allowance of the Commisison on Medical Education and Licensure and asked for reconsideration of the amount allotted his Commision, in view of the fact that the Commission had voted in favor of assisting the National Science Fair winners with their transportation expenses to Seattle for the National Science Fair.

b. Journal finances: Previously discussed.

c. Financing the building: Previously discussed.

d. Student Loan program, previously discussed by Dr. Green.

e. Travel insurance which would cover all employees, both full and part time, all officers, all councilors, committee and commission members, delegates and alternate delegates, and any members of the Association traveling on State Association business, was discussed by Drs. Wood, Glock and Stimson. The premium quoted is nominal for the amount of coverage involved.

On motion of Drs. Stimson and Glock the Council directed the Executive Committee to give further consideration to this matter at its next meeting.

f. Proposal of Eli Lilly and Company that in lieu of renting exhibit space at the annual convention they contribute a sum of money to be used in paying speakers' honoraria, etc. This matter is to be discussed again at the next meeting of the Executive Committee.

g. The Executive Committee, at its meeting on January 13, 1962, approved paying mileage and legitimate expenses of the members of the Council Liaison Committee in attending Blue Shield Board meetings.

h. The Executive Committee voted at its January 13, 1962 meeting, to send copies of the Executive Committee minutes to the members of the Council.

2. *Commission on Aging:* DR. NATHAN SALON, chairman, gave a detailed report on the activities of his Commission and asked for the advice and approval of the Council on the progressive home care program for the aged, as described in this report.

On motion of Drs. Edwards and Everly the Council endorsed the procedure outlined by the Commission on Aging for the study of adequate home care programs for the aged.

DR. A. C. OFFUT, State Health Commissioner and a member of the Commission on Aging, called attention to the fact that federal money will be made available for an expansion program for the care of the chronically ill and the aged. "As a result we should not be pushed into some kind of a program that might not be medically feasible. I think that your action here has also, as I understand it, given us, as a member of the Commission, a chance to go ahead and plan for these meetings in order that we might take the lead rather than to let someone else." **Approval of the Council on this procedure was taken by consent.**

3. *Commission on Public Health. By consent the Council endorsed the MEDIC-ALERT Foundation,* as described by Dr. Emmett B. Lamb, chairman of the Commission on Public Health, in his letter of Jan. 11, 1962, to the Council, as follows:

"Your Commission on Public Health has given some study to the problem of identifying uncoordinated, unconscious or dead persons.

"We feel that this is an essential item, not only for the present situation of identifying single individuals or small groups of individuals but would be an essential item in case of mass casualties.

"Of the various programs reviewed by the Commission on Public Health the Medic-Alert Foundation, of Turlock, California, would be recommended. Attached, you will find a list of Medical Societies endorsing the Medic-Alert Foundation.

"The Commission on Public Health would recommend to the Council of the Indiana State Medical Association that Medic-Alert be endorsed and recommended to the public for participation."

4. *Commission on Voluntary Health Agencies.*

a. On motion of Drs. Glock and Wilder, the Council endorsed the following motion which was submitted by the Commission on Voluntary Health Agencies:

"Dr. Bryan moved and Dr. Brown seconded that this Commission request of the Council that they urge that each of the component county medical societies of the Indiana State Medical Association form a Committee on Voluntary Health Agencies, if they do not already have one—that the members of this Committee familiarize themselves with the facts of all the voluntary health agencies operating in their county and that the members of this committee be informed of the work of the Commission on Voluntary Health Agencies of the Indiana State Medical Association through the District representative of that District on the Commission, and that the members of this county committee assist in implementing the decisions and policies of this Commission to the Voluntary Health Agencies in their county, and finally, that these members be asked to communicate any facts of pertinent nature on these agencies to the Com-

mission on Voluntary Health Agencies through their District member. This motion was carried."

b. **On motion of Drs. Glock and Edwards the Council voted to take no action on the request of the Commission on Voluntary Health Agencies** that the State Medical Association file a protest against the National Foundation for adding additional diseases to its self-imposed responsibilities. The National Foundation's letterhead now lists the following: Poliomyelitis, Virus Diseases, Arthritis, Birth Defects, and Central Nervous System Disorders.

5. *State Board of Health Matters.* DR. A. C. OFFUTT, reported as follows:

a. Phenylketonuria law: You will recall that in the last session of the legislature a law was passed which instructed the State Board of Health to do something about the matter of an educational program on phenylketonuria. I am here today to bring to you the first word on our activity in that field and request your approval to extend some of our activity in that area.

You are all aware of the disease itself and the fact if these children are not diagnosed and receive early treatment, they probably will end up with need for institutionalization. This costs from $1300 to $1500 a year per child, and we are proposing for this matter of treatment that for those families who cannot provide necessary treatment the State Board of Health does have the funds and can provide the material. The cost might run as high as $700 a year for the treatment of these children. I reiterated that this is not across the board, this is only for those children who are certified to be indigent and whose families cannot supply the material. We have sent each of you, I think, a booklet on the disease itself and I would like to outline five points in the proposal and solicit your approval.

(1) That the State Department of Public Welfare and the State Board of Health will administer a program for the furnishing of diets for the treatment of children with phenylketonuria in families financially unable to provide the diet. This program will be in cooperation with the Indiana State Medical Association. This latter will depend on your action here today.

(2) Children receiving special diets from the State Board of Health will be required to have a medical evaluation by the Indiana University Medical Center or such other medical facility as may be designated. This can be a practicing physician source referral.

(3) A statement from the medical facility establishing the diagnosis and that the child may be expected to benefit from the diet will be necessary, and further periodic evaluation will be done as required. The State Department of Public Welfare has agreed and will do the family social case work to determine financial eligibility.

(4) A special diet will be issued to the family from the State Board of Health on the basis of the medical and social evaluation.

(5) The family, or such resources as may be available, will be responsible for the payment of medical costs other than for the diet.

On motion by Dr. Black, taken by consent, the Council approved the program as presented by Dr. Offutt.

6. *Joint Study Committee on Economics of Modern Health Services.* Dr. Edwards reported that the committee appointed upon the recommendation of the House of Delegates consists of representatives from the Indiana State Medical Association, Blue Shield, Blue Cross, the Hospital Association and the Health Insurance Council. The physicians on the committee are, in addition to Dr. Edwards, George W. Willison, Evansville, representing Blue Shield; Bernard Rosenak, Indian-Lafayette Blue Shield; Wallace Buchanan, radiologist, South Bend ISMA, Lowell Thomas, Indianapolis, chairman, Commission on Medical Economics and Insurance, ISMA.

The objectives of the committee are: (1) To continue to seek a means of providing the public with scientifically sound health services at a reasonable cost through voluntary prepayment methods; (2) To examine present programs, facilities and practices for inflationary factors, and to seek feasible solutions; (3) To develop suggested methods of combating inflationary factors as well as new programs.

"Basically, the idea we are trying to get across, and I think we are beginning to make some progress, is that the doctor alone cannot control the cost of medical services.

"We appointed sub-committees in which two of them are for physician responsibilities largely; Dr. Rosenak and Dr. Willison are sub-chairmen of these groups."

7. *Request of Suemma Coleman Home,* Indianapolis, to use the ISMA mailing list in addressing a brochure to all physicians in the state, was **approved by consent.**

Spring Meeting of the Council

On motion of Drs. Stimson and Eades, the spring meeting of the Council was set tentatively for Sunday, April 29, 1962.

There being no further business, the meeting was adjourned. ◄

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EDITORIAL AND
ADVERTISING INFORMATION

All articles must be typewritten, double-spaced with margins of one inch.

Photographs should be printed on glossy paper. Negatives cannot be used.

Illustrations are desirable. Selection of illustrations submitted at discretion of editor and editorial board members. Cost of color illustrations must be shared by the author.

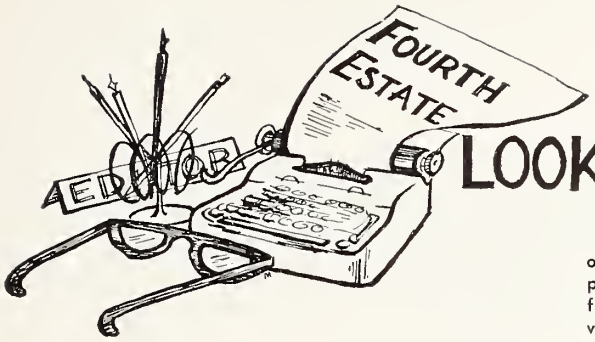
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Advertising rates will be furnished on request. Copy must be received by the 5th of the month preceding month of issue. (Scientific manuscripts must be received at least two weeks earlier if geared for a specific issue.)

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LOOKS AT MEDICINE

This section of THE JOURNAL is devoted to the presentation of opinions which appear on the editorial pages of the public press, and which are of interest to the medical profession. Its function is to review comments which may be favorable or unfavorable to medicine. Members are invited to submit editorial clippings for this column.

Medicine's Status and Future

Perhaps the most significant indication of the troubled status of American medicine is the reluctance of the young to enter the profession. Medical schools applicants have declined not only in number but in academic qualification, as Sam B. Armstrong's articles in the *Post-Dispatch* have shown.

For some years the schools have not been graduating enough doctors to fill the internships in our hospitals—about 7000 a year for 12,000 positions. Laymen have long warned that the failure to expand medical education—at least at the rate of population growth—could result only in a shortage of doctors all the more serious because of a growing awareness of the importance of medical care and enhanced ability to meet its costs. Now there is a lack of students for the schools which must be built. What happened?

The length and cost of medical training are involved, and so is the increased demand for scientists in other fields. Yet much of the difficulty may stem from the changed status of the doctor. Unfair as it is to conscientious practitioners, there has been a decline in respect for the doctor as the compassionate helper of the distressed. The fault may be largely that of the A.M.A. publicists. Yet a University of Michigan psychologist is moved to say that medicine "is the last stronghold of individualistic economic competition," that "the typical young executive in big industry today has a far greater sense of community needs than does the young physician," and that the profession does not attract those who become "teachers, ministers, social workers, i.e., professional persons interested in doing something for the good of mankind."

This pattern is not set by the dedicated teacher and the conscientious practitioner. The nation's health and the profession's honor depend on their ideals. They can improve the doctor's status by speaking out against those who distort it, and by cooperating with all who try sincerely to cope with the cost of medical care. So, they again will attract recruits to the army of healers.—*St. Louis Post Dispatch,* Feb. 12, 1962.

He Believed in the People

For many years now, America listens through an outpouring of words, spoken and written, about Abraham Lincoln on the occasion of his birthday. A whole tradition has grown up around Lincoln Day, and the annual outburst is notable and worthy of the effort.

Yet, a nagging doubt often arises about these formal observances in memory of the President who led the nation through its most convulsive struggle. It is easy to wonder whether America still listens when Abraham Lincoln speaks, or is his wisdom conveniently drowned in the flood of other men's words?

There is reason to wonder. Above all else, Abraham Lincoln had a sort of mystic faith in the people of America. He had this faith in a populace that was neither well-housed, well-clothed nor well-fed by modern standards. The land on which they lived was raw at best, and primitive to a great degree.

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Early, efficient reduction of blood pressure. Only Salutensin combines the advantages of protoveratrine A ("the most physiologic, hemodynamic reversal of hypertension"[1]) with the basic benefits of thiazide-rauwolfia therapy. The potentiating/additive effects of these agents[2-8] provide increased antihypertensive control at dosage levels which reduce the incidence and severity of unwanted effects.

Salutensin combines Saluron® (hydroflumethiazide), a more effective 'dry weight' diuretic which produces up to 60% greater excretion of sodium than does chlorothiazide[9]; reserpine, to block excessive pressor responses and relieve anxiety; and protoveratrine A, which relieves arteriolar constriction and reduces peripheral resistance through its action on the blood pressure reflex receptors in the carotid sinus.

Added advantages for long-term or difficult patients. Salutensin will reduce blood pressure (both systolic and diastolic) to normal or near-normal levels, and maintain it there, in the great majority of cases. Patients on thiazide/rauwolfia therapy often experience further improvement when transferred to Salutensin. Further, therapy with Salutensin is both economical and convenient.

Each Salutensin tablet contains: 50 mg. Saluron® (hydroflumethiazide), 0.125 mg. reserpine, and 0.2 mg. protoveratrine A. See Official Package Circular for complete information on dosage, side effects and precautions.

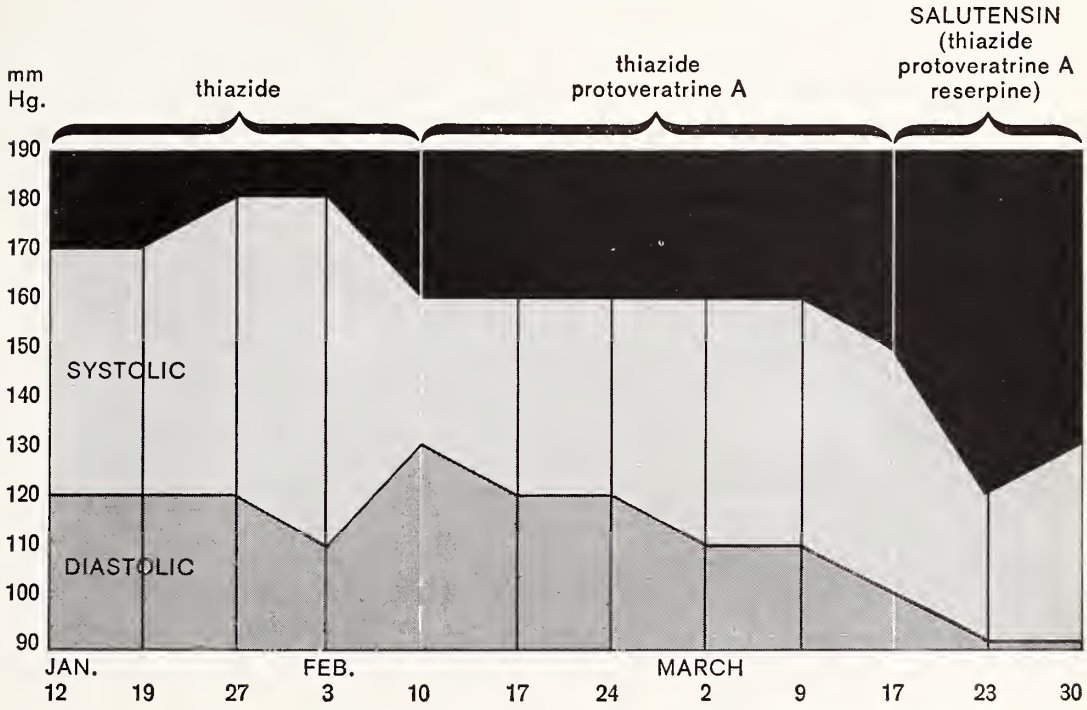
Supplied: Bottles of 60 scored tablets.

References: 1. Fries, E. D.: In Hypertension, ed. by J. H. Moyer, Saunders, Phila., 1959 p. 123. 2. Fries, E. D.: South M. J. **51**:1281 (Oct.) 1958. 3. Finnerty, F. A. and Buchholz, J. H.: GP **17**:95 (Feb.) 1958. 4. Gill, R. J., et al.: Am. Pract. & Digest Treat. **11**:1007 (Dec.) 1960. 5. Brest, A. N. and Moyer, J. H.: J. South Carolina M. A. **56**:171 (May) 1960. 6. Wilkins R. W.: Postgrad. Med. **26**:59 (July) 1959. 7. Gifford, R. W., Jr.: Read at the Hahnemann Symp. on Hypertension, Phila. Dec. 8 to 13, 1958. 8. Fries, E. D., et al.: J. A. M. A. **166**:137 (Jan. 11) 1958. 9. Ford, R. V. and Nickell, J.: Ant. Med. & Clin. Ther. **6**:461, 1959.

all the antihypertensive benefits of thiazide-rauwolfia therapy plus the specific, physiologic vasodilation of protoveratrine A

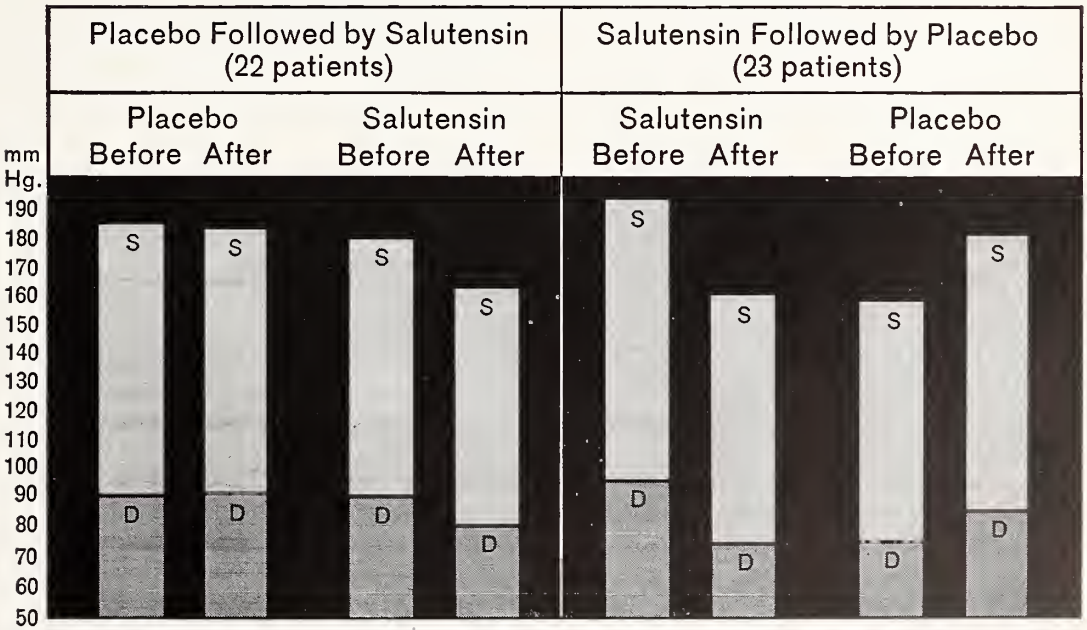
11 WEEKS TO LOWER BLOOD PRESSURE TO DESIRED LEVELS BY SERIAL ADDITION OF THE INGREDIENTS IN SALUTENSIN IN A TEST CASE

(Adapted from Spiotta, E. J.: Report to Department of Clinical Investigation, Bristol Laboratories)



3½ WEEKS TO LOWER BLOOD PRESSURE TO DESIRED LEVELS USING SALUTENSIN FROM THE START OF THERAPY IN A "DOUBLE BLIND" CROSSOVER STUDY

Mean Blood Pressures–Systolic (S) and Diastolic (D)



In this "double blind" crossover study of 45 patients, the mean systolic and diastolic blood pressures were essentially unchanged or rose during placebo administration, and decreased markedly during the 25 days of Salutensin therapy. (Smith, C. W.: Report to Department of Clinical Investigation, Bristol Laboratories.)

BRISTOL LABORATORIES/Div. of Bristol-Myers Co., Syracuse, N.Y.

BRISTOL

There were schools, but the fact is that much of America was un-schooled if not illiterate during Lincoln's day. Political dissension racked the body politic. With all these disabilities, Lincoln trusted and believed in the people of America.

The nation has changed in the century since Lincoln went to Washington, but has it changed so drastically that his faith in the American people no longer counts? There are those who will argue the point. There is a currently popular idea that government, society or an organized agency of some sort must serve as the bedrock on which the future of the country must be built.

Lincoln might have listened patiently to the debate, but we doubt that he would change his mind, even for the best-housed, best-fed, best-educated nation on earth. We believe that Lincoln would say the individual is more important than the organization; the people of America are the foundation on which the nation's future must be built.

This belief in the people, in the man of freedom, is not totally popular today. It wasn't generally accepted when Lincoln spelled it out in words, and in action. Yet, this nation should remember that the strength of America lies in its individual citizens, in its people.—*Indianapolis Star*, Feb. 13, 1962.

Coroners and Murder

MURDER WILL OUT, runs the old saying, but will it?

Lt. Charles A. Davis, chief of the Indiana State Police laboratory, said it is estimated that nationally 5,000 murders go undetected each year. Dr. Robert B. Forney, Indiana state toxicologist, estimates that up to as many as 90 poisonings a year go undetected in Indiana.

These were two of the startling things heard by a state study commission at hearings in Indianapolis last week. The hearings are being held to study the effectiveness of the office of County Coroner.

A former Lake County coroner, Dr. Daniel Bernoske, who is Lake County Public health director, gave his opinion that the office of coroner, which is set up by the Indiana constitution of 1851, should be abolished. Instead, Dr. Bernoske favors establishment of a medical examiner system. The medical examiner would be on the prosecutor's staff in each county.

Dr. Bernoske, along with many other people, feels that under the present coroner system too many cases of foul play go undetected because either coroners have no medical training or having such training know too little about the criminal investigation angles of medicine.

As a case in point, Dr. Bernoske recalled the story of Warren Byrd, a New Castle, Ind., barber convicted last June in the arsenic poisoning of his wife. After Byrd's arrest for the murder of his second wife, the body of his first wife was exhumed. Tests showed the first wife's death, which had been listed as natural, was due to arsenic poisoning.

Arguments over the effectiveness of the office of coroner have been heard for years, not only in Indiana but also in other states having the office. In most states the office, which originally, back in the days of King John of England, involved determining rights to property left by deceased persons, requires no specific training.

In U. S. politics, there has been a running argument for years as to whether a coroner should be a doctor of medicine or an undertaker, the argument centering around which is best fitted to conduct an inquiry into death from unexplained causes. Actually, the powers of a coroner, whatever his occupation, are somewhat restricted to the challenges facing him in the present age.

It is doubtful that Hoosiers will decide on a constitutional change to abolish the office of coroner for the medical examiner system, but there are a number of steps which can be taken under existing law to make the work of the office more effective.

Not the least of these is provison for more trained investigators and laboratory detectives who will help make sure that "murder will out."—Reprinted from the *Gary Post-Tribune*, Dec. 17, 1961. ◄

The Journal of the INDIANA STATE MEDICAL ASSOCIATION

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Smears, Biopsy, Conization And Curettage Specimens: Their Role in the Diagnosis of Uterine Cancer

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Indianapolis

THE IMPORTANCE OF THE uterus as the site of primary malignancy rests not only upon the frequency with which this organ is affected but also on the fact that treatment of the disease in the early stages of development results in a high cure rate.[1]

A search for early stages of the disease has resulted in the recognization of intraephithelial carcinoma (so-called carcinoma *in-situ*) of the cervix. This has posed the problem of differentiating histologically between intraepithelial carcinoma and certain atypical but apparently reversible changes in cervical epithelium, known as atypical metaplasia, or dysplasia.[2] Similarly, in the endometrium, certain atypical changes have been encountered which have been associated either concomittantly or subsequently with adenocarcinoma of the endometrium. These changes have been designated atypical hyperplasia or carcinoma *in-situ* of the endometrium.[3]

Neither the atypical hyperplasias of the cervical or endometrial epithelium nor the lesions considered to be carcinoma *in-situ* are distinctive grossly. Their appearance may not even vary significantly from normal. Most of these patients are asymptomatic, in fact most patients with early stages of invasive carcinoma of the uterus have no symptoms. Because the treatment varies depending not only upon the site but also upon whether a lesion is an atypical hyperplasia, intraepithelial carcinoma, or invasive carcinoma, it is important to determine the nature of the lesion before therapy is begun.

Most of the malignancies of the uterus arise from the epithelium of the cervix and endometrium. The site in which these carcinomas are usually found in their early stages are illustrated in Figure 1. Most

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Acknowledgment: The illustrations were prepared by Miss Beth Sherman of the Department of Illustration.

carcinomas of the cervix arise in the endocervical canal, usually at or near the external os. Often, part of the lesion may extend to involve the vaginal face of the cervix. Occasionally, the site of the lesion is high in the endocervical canal with normal epithelium at the squamo-columnar junction.[4]

Carcinoma of the endometrium in early stages is usually found high in the fundus, frequently on the posterior wall. Occasionally it may arise in either cornual region, and less frequently it is found in other sites.

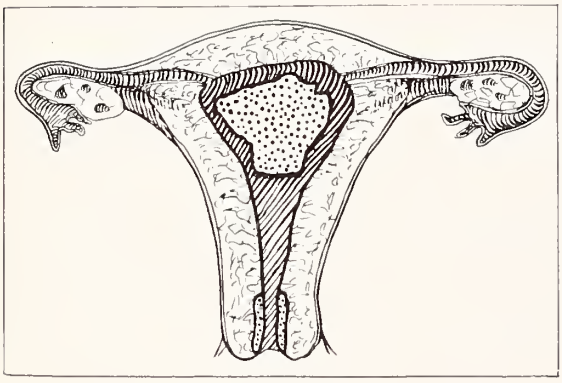


FIGURE 1

DIAGRAM of the uterus. The speckled region in the endocervical canal indicates the usual site of intraepithelial carcinoma and early stages of invasive carcinoma of the cervix. The speckled region in the fundus indicates the usual site of early stages of carcinoma of the endometrium.

Following is a resumé of the role of the several procedures used in detecting and determining the nature of these lesions:

Use of Exfoliative Cytology (Smears; "Papanicolaou Test")

The chief objective of this method is the detection of asymptomatic and non-visualized carcinoma of the cervix or endometrium. *This is a sorting procedure, and will screen out those patients who will need further studies to determine the exact nature of changes found in the exfoliated cells.*

Exfoliative cytology is successful when lesions that are sought involve the surface and when cells from the surface can either be scraped off or shed into a pool available for collection. The carcinomas *in-situ* and early stages of invasive lesions which are not symptomatic and not detectable by direct visualization or palpation are therefore readily detected by the cytologic method.

When a carcinoma of the cervix is visible, the surface may be covered with fibrin or necrotic debris so that cells may not exfoliate. Cells from such a lesion may not be present in these preparations. This is not a "drawback" to this method; the lesion can be detected by other means.

The smears may contain three samples. One is often prepared by scraping cells from the surface of the cervix, including the external os, in a circular fashion. The second is often an aspiration or swab specimen from the endocervical canal, the third a sample from the vaginal pool. Each of these specimens should be spread thinly and carefully, so as not to damage the collected cells, on an appropriately labelled slide and immersed immediately into the fixative, usually 95% methyl alcohol.

Details of this method are well known and have been given in clear fashion by Haymond in a recent issue of the *Journal of the Indiana State Medical Association.*[5] The method may be expected to yield about three or four cases of asymptomatic cervical carcinoma per 1000 women examined. With well prepared specimens, over 95% of asymptomatic cervical carcinomas may be detected by this means. The results for endometrial carcinoma are not as good, but with our increased knowledge regarding cells from endometrial carcinoma, the percentage of such lesions detected should increase greatly.[6] *All positive or suspicious findings must be studied further by obtaining tissue for histologic evaluation.*

Cervical Biopsy

Biopsy of the cervix is indicated when a lesion is visible, or in non-visualized cervical lesions after positive cytologic preparations have previously been obtained. When a lesion is present, it should be biopsied. When no lesion is visible and biopsy is indicated, a biopsy from the anterior and posterior lips and each lateral border of the cervix should be done.

Painting the cervix with iodine (Schiller test) may aid in determining sites for biopsy. The biopsy should endeavor to include a part of the endocervical tissue, that is, the so-called squamo-columnar junction of the cervix. The tissue removed should be procured with a *sharp* biopsy instrument. Use of a dull biopsy instrument crushes the very fragile atypical epithelium rendering proper study difficult or impossible. The tissue obtained should be handled as little as possible and fixed immediately, usually in 10% formalin. The use of formalin rather than some other fixative allows the pathologist to orient the tissue obtained more readily so that he may prepare sections perpendicular to the squamo-columnar junction.

The biopsy should detect all visible lesions. The four-quadrant biopsy technic should be positive in 85 to 90% of cases of intraepithelial carcinomas, lesions usually not visible on clinical examination but detected by routine cytologic examinations of asymptomatic women. *When abnormal cell studies have been obtained, a negative biopsy report is an indication for further studies, usually a "conization" of the cervix and curettage of the endometrium. It should not be interpreted as excluding the possibility of cancer.*[7]

Conization of the Cervix

This procedure is of value when the results of the biopsy are equivocal or negative, or if the results obtained by biopsy require further confirmation. In certain cases, after cytologic examination reveals abnormal cervical cells and no lesion is visible, conization is often done without resorting to biopsy first. It is our practice to recommend that conization of the cervix be done in all instances for lesions suspected either cytologically or by biopsy to be intraepithelial carcinoma. The tissue obtained is serially blocked and several sections from each block examined histologically for areas of invasive carcinoma. Such areas may not be apparent in the 4-quadrant biopsy specimens. When invasive carcinoma is apparent clinically, probably conization should not be done unless prior biopsy procedures are negative.

The limitations of the conization specimen are chiefly those of disruption of the epithelium by the surgical technic. *The specimen should be obtained with a sharp knife, not by cautery. There should be no prior instrumentation of the canal, either with probe or dilator.*

The pathologist should take care to orient the specimen properly, then obtain serial blocks from the entire specimen at intervals of 1 or 2 mm., at right angles to the squamo-columnar junction, Figure 2. These blocks should be examined by the permanent section technic, not by frozen section.

Aspiration Biopsy of the Endometrium

This procedure is of value in patients who are suspected of having carcinoma of the endometrium. The procedure is not done as frequently as I believe it might be. The biopsy may be obtained as an office procedure. *In the symptomatic patient, a negative aspiration biopsy should be followed by thorough endometrial curettage.*

Curettage of the Endometrium

The objective of this procedure is the diagnosis of carcinoma of the endometrium

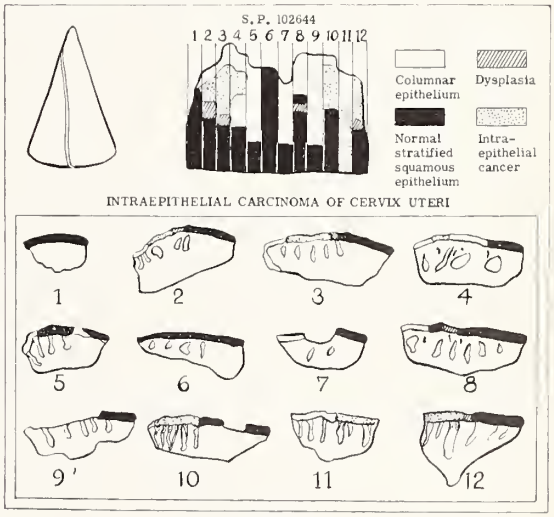


FIGURE 2

A "CONE" of the cervix. The specimen was opened along the "12 o'clock" position, laid flat, and cut into 12 blocks. The findings in sections of the blocks are indicated below and were transposed to the flattened specimen above. Note the extent of the lesion, the extension of intraepithelial carcinoma into the glands in sections 10, 11, and 12, and the presence of foci of dysplasia adjacent to the intraepithelial carcinoma.

in symptomatic patients in the cancer age group, or in asymptomatic patients in the cancer age group in whom previous abnormal cytologic preparations have been obtained.

In our experience, frozen section interpretations of such specimens has yielded a number of false negatives. These were rectified on subsequent paraffin sections of the tissue removed. The false negatives on frozen sections have resulted from two sources. Invasive carcinoma may not be present in the pieces of tissue used to prepare the frozen sections and may be found in other areas subsequently. Secondly, the borderline lesions, so called atypical hyperplasia or carcinoma *in-situ* are difficult to detect in frozen sections.

Summary

The role of cytology in the management of carcinoma of the uterus is one of detecting unsuspected, asymptomatic carcinoma. When symptoms are present, negative cytologic preparations are of no value in excluding malignancy. After therapy, cytologic preparations at each follow-up examination may aid in detecting local recurrences before they are visible. Treatment of patients with malignancy should not be initiated until the diagnosis has been confirmed by histologic means.

Biopsy of the cervix and aspiration biopsy of the endometrium are of value if a lesion is apparent, if the patient is symptomatic or if positive cytologic preparations have been obtained. Probably only when the lesion found by these biopsy technics is an invasive carcinoma is it satisfactory to proceed before further diagnostic procedures are performed.

"Cold knife" conization of the cervix without prior instrumentation of the canal is necessary in instances of positive cytologic findings not confirmed by biopsy, as well as in instances of dysplasia and intraepithalial carcinoma of the cervix.

Curettage of the endometrium is indicated when aspiration biopsy of the endometrium fails to reveal an invasive carcinoma in a symptomatic patient or in a patient who has had positive cytologic studies.

REFERENCES

1. U. S. Department of Health, Education, and Welfare, Public Health Service: Survival Experence of Patients with Malignant Neoplasms. *A Report Prepared by the End-Results Group for the Fourth National Cancer Conference, Minneapolis*, September 13-15, 1960. Washington.
2. Reagan, J. W.. Seidemann, I. L., Saracusa, Y.: The Cellular Morphology of Carcinoma In-Situ and Dysplasia or Atypical Hyperplasia of the Uterine Cervix. *Cancer* 6:224-235, 1953.
3. Hertig, A. T., Sommers, S. C., Bengloff, H.: Genesis of Endometrial Carcinoma. III. Carcinoma In-Situ. *Cancer* 2:964-971, 1949.
4. Foote, F. W., Jr., Stewart, F. W.: The Anatomical Distribution of Intraepithelial Epidermoid Carcinoma of the Cervix. *Cancer* 1:431-440, 1948.
5. Haymond, J. L.: Uterine Exfoliative Cytology in a Private Medical Laboratory. *J. Ind. S. M. A.* 54-463-469, 1961.
6. Koss, L., Durfee, G. R.: The Principles of Cytologic Diagnosis of Early Endometrial Carcinoma. *Cytology Newsletter* 2:3, 1960.
7. Christopherson, W. M., Parker, J. E.: A Critical Study of Cervical Biopsies Including Serial Sectioning. *Cancer* 14:213-216, 1961. ◄

Newer Concepts in the Chemotherapy of Neoplastic Disease

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WILLIAM H. BOND, M.D.
M. E. HODES, M.D., Ph.D.*
Indianapolis**

SIXTEEN YEARS AGO, the modern era of chemotherapy of neoplastic disease was initiated by Gilman and Philips[6] when they described the effects which B-chloroethylamines had upon some neoplastic disorders of the reticulo-endothelial system. Since that time, literally thousands of chemical compounds have been tested for possible effectiveness in the treatment of a wide variety of malignancies.

It seems quite probable effective chemotherapeutic agents must be found if the leukemias and the lymphomas are to be cured. It is less obvious, but equally important, that agents be found which will be effective against carcinomas and non-reticulo-endothelial sarcomas, since many of these neoplasms are disseminated at the time of diagnosis, and are thus, not susceptible to surgical or radiological extirpation.

An ideal chemotherapeutic agent would be one which could be produced cheaply, could be taken by mouth, would be capable of completely suppressing the growth of neoplastic tissue of any type, and which would, in no way, injure normal tissue. Any consideration of those agents which are presently available for clinical use reveals how far we are, at this time, from achieving this goal. Progress has been made, however, in the production of new, less toxic agents, and the management of patients with inoperable neoplasms has undergone a radical change in the period since 1946.

It would be impossible in a brief manuscript, such as this, to even list all the agents that have been studied for possible oncolytic effect. It seems inappropriate, too, to present data on some of the older agents such as nitrogen mustard, triethylene melamine, chlorambucil, ethyl carbamate, corticosteroids, and the folic acid and purine antagonists, since their mode of action, dosage, and tumor spectrum have been well documented.[16, 13, 9, 8, 7, 3] It is proposed, rather, to present some of the newer agents that either demonstrated definite therapeutic superiority under a given circumstance or some agents undergoing preliminary clinical trial that have demonstrated a striking oncolytic effect in certain neoplastic disorders. A number of these agents have been, and are being, utilized for clinical trial at the Indiana University Medical Center and illustrative graphs and

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photographs showing response to therapy will be included in this report.

Alkylating Agents

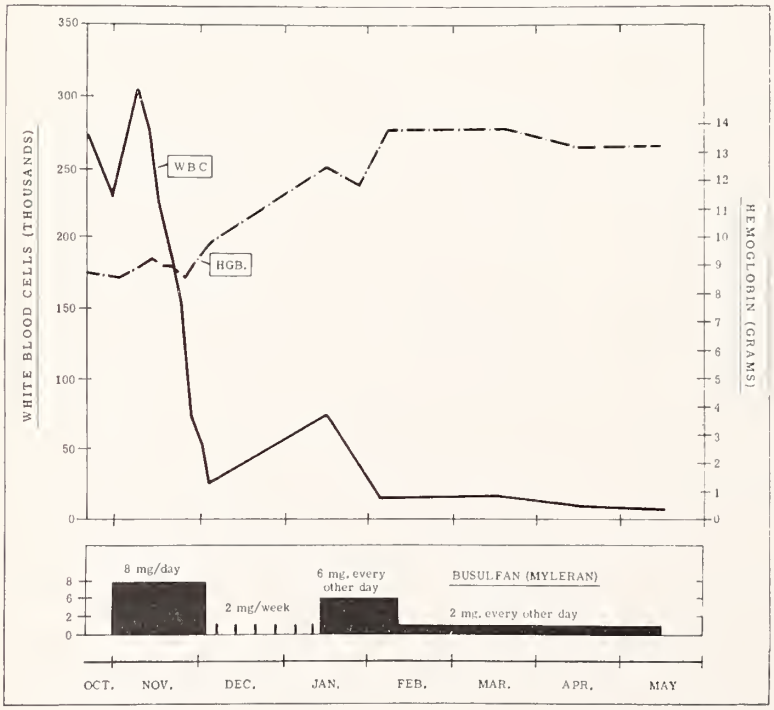
A number of new alkylating agents are either being marketed or employed in large scale clinical trials. Of these, busulfan, cyclophosphamide, N,N'-bis-(3-Bromopropionyl)-piperazine, and Elderfield pyrimidine mustard have proved more effective than any other, new available alkylating agents. It is of further interest that though Karnofsky[14] observed no significant difference in response of the human tumor spectrum to the differing alkylating agents, the agents listed above in our experience did demonstrate at least partial selectivity in differing neoplastic disorders.

Busulfan (Myleran)[5] has been found to be strikingly effective in the treatment of chronic myelocytic leukemia. It is well tolerated, affords great flexibility in the course of treatment, is effective in controlling both the blood count and spleen size, and demonstrates a relatively low level of toxicity. For the past several years this has been our drug of choice in chronic myelocytic leukemia (Graph 1).

Cyclophosphamide (Cytoxan)[15] has been employed in a number of human neoplasms but it appears that it is most effective in the treatment of disseminated Hodgkin's disease. Except for its propensity to unpredictably cause alopecia it is well tolerated and can be used for sustained maintenance therapy over relatively long periods.

N, N'-bis-(3-Bromopropionyl)-piperazine (A-8103 Abbott) is an experimental alkylating agent which was thought to be a useful agent in the management of chronic myelocytic leukemia,[1] however, current experience has shown this agent to be most effective in the management of polycythemia rubra vera (Graph III). It is quite cytolytic and may cause profound depression of all marrow elements. Other distressing reactions are minimal. The drug is administered orally.

Elderfield pyrimidine mustard[17] has been reported to be singularly effective in the control of lymphocytic leukemia. As shown in (Graph IV) it can depress the leukemic cell population in drug resistant patients. Not shown on this graph is the striking decrease in peripheral and abdominal lymphadenopathy that had accompanied the elevated white blood count. This agent can be given orally although it is necessary to administer anti-acids if adequate absorption of the agent is to be effected. Toxic



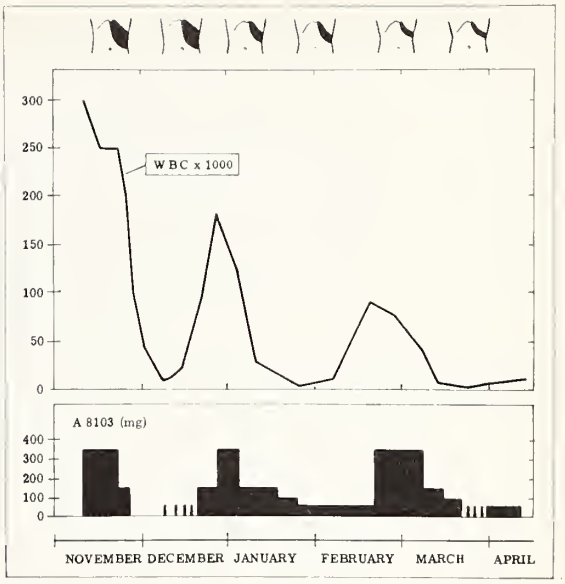
GRAPH 1
Case of R.W. 58 WF. Chronic myelocytic leukemia. Previously untreated.

reactions are minimal and the agent seems to be readily tolerated.

Metabolic Antagonists

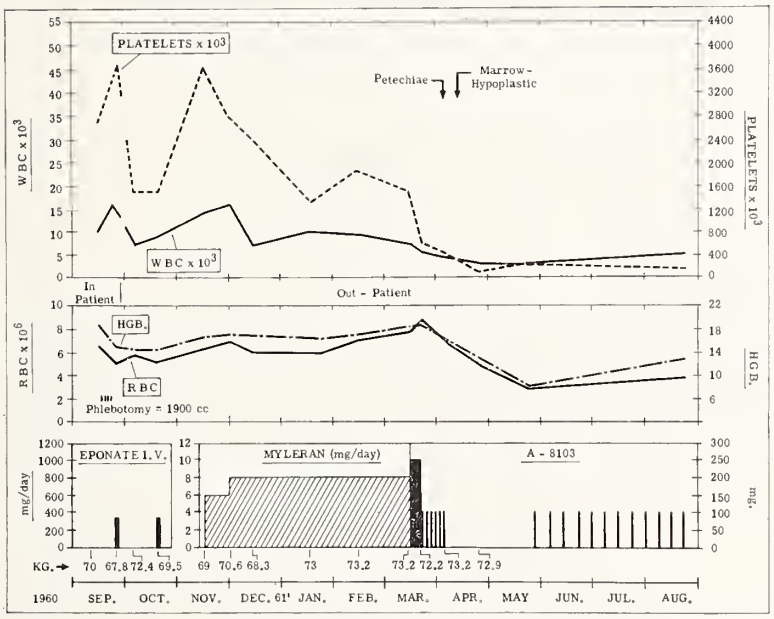
It would seem that metabolic antagonists would have widespread use in many neoplastic disorders since they can be so readily tailored to block very specific cellular reactions but those agents that have succeeded the folic aid and purine antagonists have proved somewhat disappointing. Of these agents, it should be noted that Methotrexate[10] has produced remissions in chorio-carcinoma in women sufficiently prolonged to suggest a possible cure of this disorder. Such remissions are seemingly possible even in the face of disseminated metastatic disease.

Of the other antagonists, those which have showed the greatest tumor spectrum



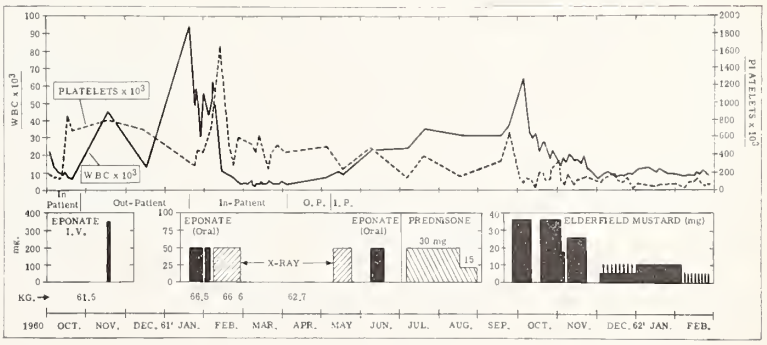
GRAPH 2

Case of E.H. 32 WM. Chronic myelocytic leukemio. Treoted with #8103-Abbott. Previously untreated.



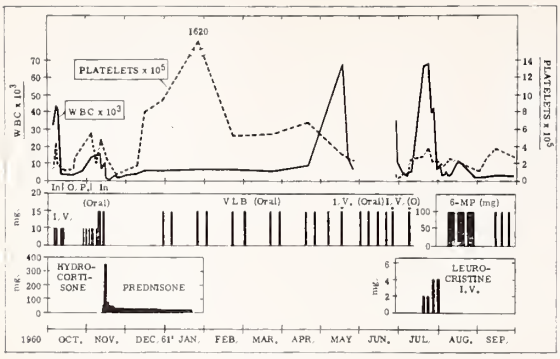
GRAPH 3

Case of M.C. 56 WF. Suffering from polycythemio rubro vero. Initiol poor response to exponate, ond rising RBC ond HgB while receiving myleron. Excellent response to #8103-Abbott.



GRAPH 4

Case of R. O'N. 30 CM. Chronic lymphocytic leukemio with good control while receiving Elderfield Pyrimidine Mustard.



GRAPH 5

Case of P.P. 17 WM. Acute monocytic leukemia showing response to vinblastine and alteration in WBC following leurocristine.

are the pyrimidine antagonists. The two pyrimidine antagonists that have received most attention are 5-fluorouracil and 5-fluro-2'-deoxyuridine.[20] These agents have been found to be effective in controlling advanced carcinomas of the gastrointestinal tract. They must be given parenterally, they are quite toxic, and, in our experience, they are not significantly more effective than vinblastine in the management of these neoplasms.

Antibiotics

A number of antibiotics have apparently demonstrated mild oncolytic activity. In most of these agents, however, the cytolytic effect is too inconsequential to achieve clinical remission. Of the agents that have shown striking oncolytic activity Mitomycin-C and Actinomycin-D seem to hold the greatest promise.

The effects of Mitomycin-C are reviewed by Frank and Osterberg[4] who noted that the agent achieved response in chronic myelogenous leukemias, some carcinomas, chorioepitheliomas, reticulum cell sarcoma, and seminoma. Mitomycin-C is quite toxic at high dosage levels and must be given parenterally.

Actinomycin-D is quite active against a number of childhood malignancies[2] but it is principally used in the treatment of Wilm's tumor.[19] This agent must be given intravenously and in some patients is quite toxic.

Alkaloids of Vinca Rosea Linn

Many alkaloids of the tropical periwinkle plant have shown significant oncolytic activity, but the two most active alkaloids which have yet had extensive clinical trial are vincaleukoblastine and leurocristine. These agents have demonstrated a broad tumor spectrum and minimal toxicity.

Vinblastine (Velban) has been found to be effective in some of the acute leukemias, particularly those of monocytic origin as is shown in (Graph V) and in (Figure VI) where striking clearing of leukemic skin infiltrates is demonstrated. This has proved to be quite effective in the treatment of Hodgkin's disease and it does demonstrate some inconstant unpredictable beneficial effects in diverse carcinomas, sarcomas, and chorioepithelioma. The agent is available for intravenous administration[11] and a preliminary study of an oral preparation of vinblastine has been reported by Hodes, et al.[12] This agent is well tolerated and toxicity is minimal and usually shortlived. Two illustrative cases are shown in (Figure VII) and (Figure VIII) both of which show marked response following therapy with oral vinblastine.

Leurocristine is of interest, in that, it



FIGURE 6

Case of H.K. leukemia cutis (Acute monocytic leukemia) (A) Before therapy. (B) Following oral vinblastine.

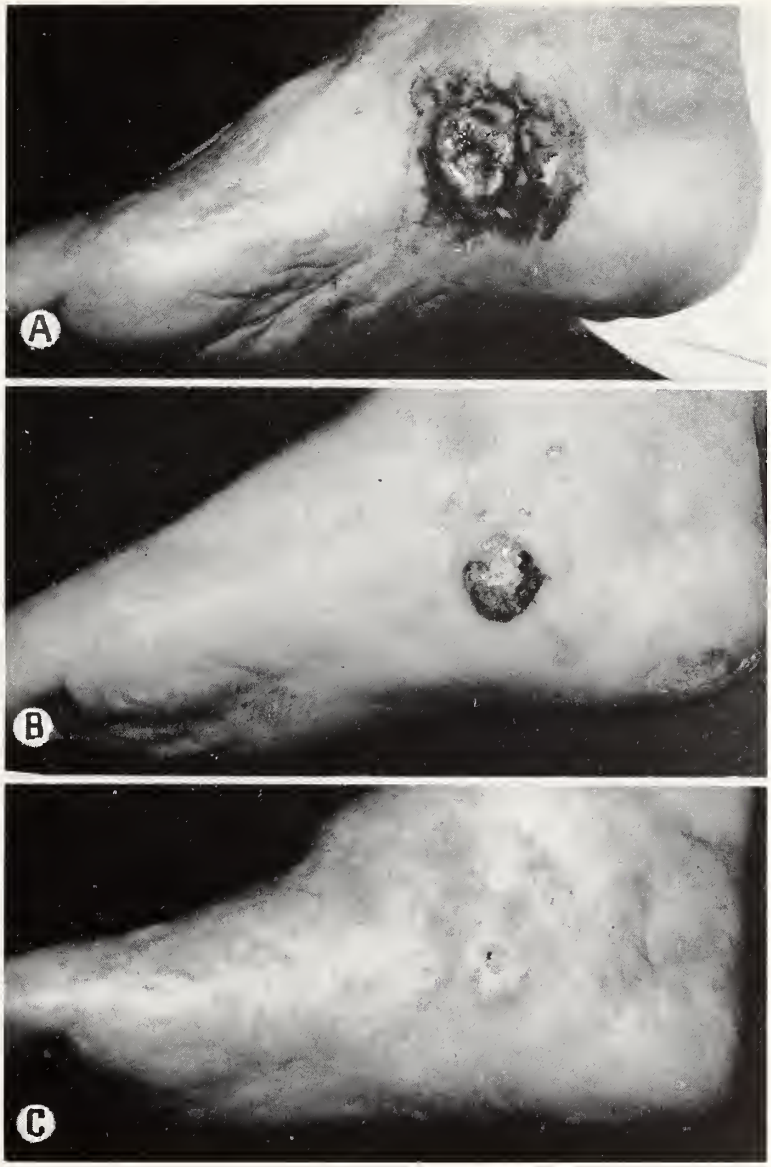


FIGURE 7

Case of D.H. Malignant melanoma. (A) Before therapy. (B) Following perfusion of leg with vinblastine. (C) Following oral vinblastine therapy.

has demonstrated effective oncolytic activity against some diseases that are not affected by vinblastine. It has been found to be effective in the treatment of acute lymphocytic leukemia and some investigators[18] have found that it can suppress childhood rhabdomyosarcoma.[18] This agent must be given intravenously and it has minimal toxicity.

Summary

The medical profession has sought for some time, a chemical agent which would cure those cancers not responsive to radiological and/or surgical attack.

In the past 16 years a wide variety of chemical agents have been studied that have demonstrated some ability to eliminate for varying periods clinical and laboratory manifestations of many neoplastic diseases. With the possible exception of chorioepithelioma no cures have been reported as a result of chemotherapeutic trial.

Gratifying, sustained palliation has fol-

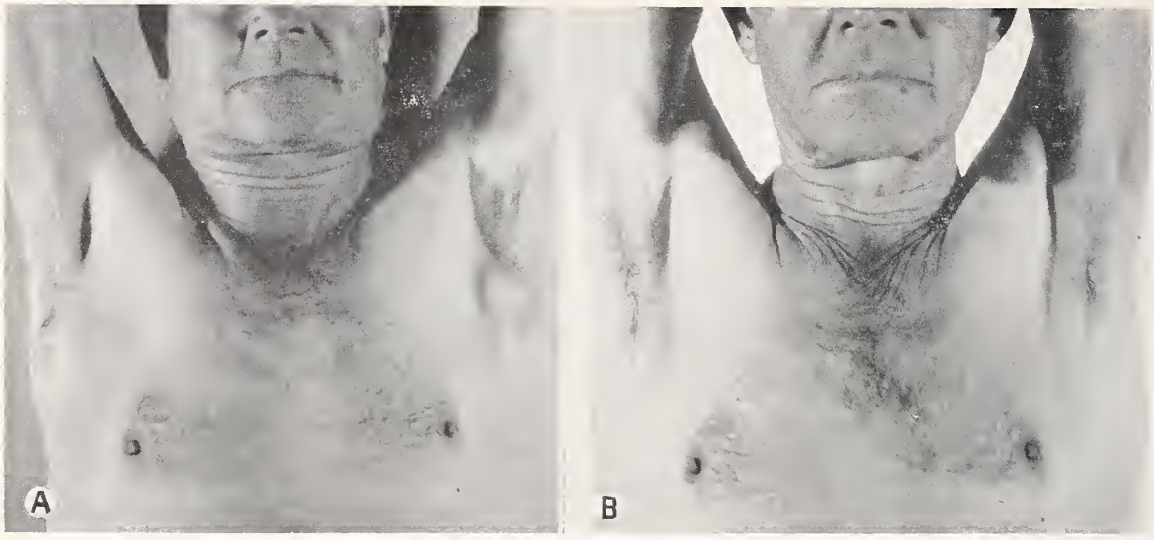


FIGURE 8

Case of C.F. Reticulum cell sarcoma. (A) Before therapy. (B) Following oral vinblastine therapy.

lowed treatment with a number of chemotherapeutic agents and vigorous search continues to compound more effective and less toxic agents. This is a very brief outline of some of the newer agents that are either presently available to the medical profession or in such an advanced state of clinical research trial that they may soon be available for general use.

The tumor spectrum, mode of administration and some illustrative material demonstrating the effect of the agents have been presented.

Acknowledgment

We would like to thank Eli Lilly and Co. for the supplies of Vinblastine Leurocristine preparations, the Abbott Co. for Compound 8103-Abbott, and Burrough and Co. for the Elderfield Pyrimidine Mustard.

REFERENCES

1. Bond, W. H., Rohn, R. J., Hodes, M. E., Yardley, J. M.: Clinical Evaluation of Compound 8103-Abbott. *Cancer Chemotherapy Reports* 16. (In Press.)
2. Colebatch, J. H.: Experience with Actinomycin-D in the Treatment of Malignant Disease of Children. *Med. J. Aust.* 2(21), 804, 1960.
3. Fessas, P., Wintrobe, M. M., Thompson, R. B., Cartwright, G. E.: Treatment of Acute Leukemia with Cortisone and Corticotropin. *Arch. Int. Med.* 94, 384, 1954.
4. Frank W., Osterberg, A. E.: Mitomycin C. (NSC-26980)—An Evaluation of the Japanese Reports. *Cancer Chemotherapy Reports* 9, 114, 1960.
5. Galton, D. A. G., Till, M.: Myleran in Chronic Myeloid Leukemia. *Lancet* 1, 425, 1955; *Brit. M. Bull.* 15, 78, 1959.
6. Gilman, A., Philips, F. S.: The Biological Actions and Therapeutic Applications of the B-Chloroethyl Amines and Sulfides. *Science* 103, 409, 1946.
7. Hall, B. H., Richards, M. D., Willet, F. M., Feichtmeier, T. V.: Clinical Experience with 6-Mercaptopurine in Human Neoplasia. *Ann. New York Acad. Sc.* 60, 374, 1954.
8. Haut, A., Allman, S. J., Cartwright, G. E., Wintrobe, M. M.: The Influence of Chemotherapy on Survival in Acute Leukemia. *Blood* 10, 875, 1955; Ibid 14, 828, 1959.
9. Haut, A., Wintrobe, M. M., Cartwright, G. E.: The Clinical Management of Leukemia. *Am. J. Med.* 28, 777, 1960.
10. Hertz, R., Lewis, J. Jr., Lipsett, M. B.: Five Years' Experience with the Chemotherapy of Metastatic Choriocarcinoma and Related Trophoblastic Tumors in Women. *Am. J. Obstet. & Gyn.* 82, 631, 1961.
11. Hodes, M. E., Rohn, R. J., Bond, W. H.: Vincaleukoblastine I. Preliminary Clinical Studies. *Can. Res.* 20, 1041, 1960.
12. Hodes, M. E., Rohn, R. J., Bond, W. H., Yardley, J.: Vincaleukoblastine III. Clinical Trial with the Oral Preparation. *Cancer Chemotherapy Reports* 14, 129, 1961.
13. Karnofsky, D. A.: Triethylene Melamine in

the Treatment of Lymphomas and Leukemias. *M. Clin. North America* 38, 541, 1954.

14. Karnofsky, D. A.: Discussion on Alkylating Agents—Conference on Experimental Clinical Cancer Chemotherapy. *Natl. Can. Inst.*, Monograph #3, 144, Aug. 1960.
15. Korst, D. R., Johnson, F. D., Frenkel, E. P., Challener, W. L. III: Preliminary Evaluation of the Effect of Cyclophosphamide on the Course of Human Neoplasms. *Cancer Chemotherapy Reports* 7, 1, 1960.
16. Paterson, E., Haddow, A., Apthomas, I., Walkinson, J. M.: Leukemia Treated with Urethane Compared with Deep X-ray Therapy. *Lancet* 1, 677, 1946.
17. Personal Communication.
18. Personal Communication.
19. Soper, R. T.: Management of Recurrent or Metastic Wilm's Tumor. *Surgery* 50, 555, 1961.
20. Young, C. W., Ellison, R. R., Sullivan, R. D., Levick, S. N., Kaufman, R., Miller, E., Waldow, I., Escher, G., Li, M. C., Karnofsky, D. A., Burchenal, J. H.: The Clinical Evaluation of 5-fluoro-uracil and 5-fluoroxyuridine in Solid Tumors in Adults. *Cancer Chemotherapy Reports* 6, 1960. ◄

About Our Cover

Cancer—and the neverending search for mastery over this hydra-headed monster—is the theme of this month's issue. The artist Laszlo Balogh, born in Hungary and now of Indianapolis, has superbly depicted this struggle in the cover he has painted for us.

Truly, cancer lives by that old maxim of tyrants: divide and rule; but like all evil, overbearing rulers, the day of defeat will come. It is our hope and firm belief that this day will shortly dawn.

Doctors and scientists have conquered and brought to submission many of the scourges that oppressed our forefathers; smallpox and diptheria, diabetes and thyroid imbalances, pneumonia and poliomyelitis—they have all surrendered to the perserverance and knowledge of modern man.

Atomic energy, the power used to create nuclear weapons, is being used to fight the body's aggressors. Ironic that this power for good is scarely discussed except in those laboratories dedicated to man's wellbeing, yet is talked of incessantly as the supreme weapon to secure power. Energy that can be used to save life is in constant danger of being used, again, to annihilate life. It is our fervent prayer that the only bomb used will be the cobalt bomb in the hospitals—that man may live, not die.—M.E.R.

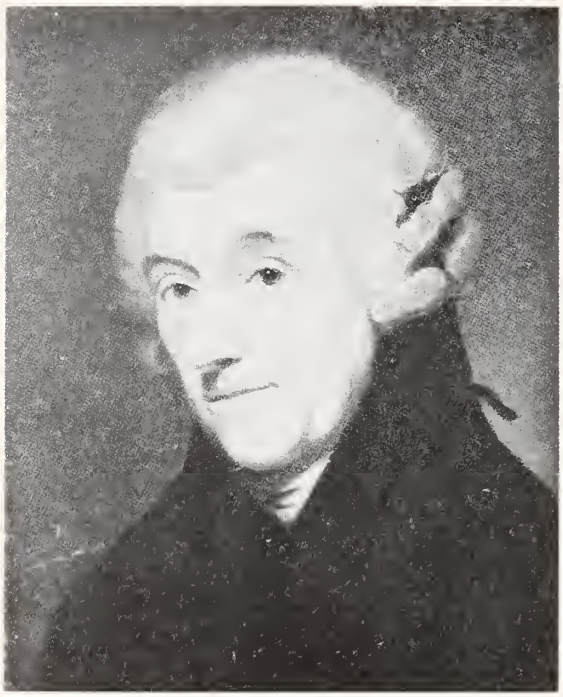


FIGURE 1
WILLIAM HEBERDEN—introduced angina pectoris to the medical profession in 1772.

Has Mankind Always Had Coronary Heart Disease?

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Ocala, Fla.

CORONARY HEART DISEASE is presently one of the leading causes of death in the United States and other civilized countries. This was not always true. How did coronary heart disease rise from a position of relative obscurity to become one of the "plagues" of modern man?

The Smith Papyrus (about 1600 B.C.) and the Ebers Papyrus (about 1500 B.C.) indicate that the ancient Egyptians knew about aneurysms of the blood vessels and irregularities of the pulse.[1] Studies in paleopathology by Elliot Smith and Sir Marc Ruffer, showed that mummies of ancient Egyptians occasionally exhibited aortic arteriosclerosis of the atheromatous type with calcium deposits. However, there are no known records from antiquity describing either *normal* or *diseased* coronary arteries.

Anatomy of the Heart

Hippocrates (460-370 B.C.) mentioned the pulse, but he did not associate it with diseases of the heart. The notion, "*Nullus in corde morbus suboritur,*" (no disease arises in the heart) was prevalent about the time of Hippocrates.[2] Aristotle (384-332 B.C.) believed that the human heart had only three chambers; two ventricles and the left auricle. He recognized two main blood vessels—the Arteria Magna (venae cava) from which the veins originate and the aorta from which the arteries arise.

White[3] stated that, "Biblical scholars and historians of Egypt, Babylon, and Syria have not uncovered reports of disease that might be interpreted as the result of defective coronary circulation."

Galen (130-200 A.D.) gave the coronary vessels their name. He also demonstrated that the excised heart would beat without connections to the nervous system. Galen erroneously believed that blood passes from the right ventricle through "invisible pores" in the "septum ventriculorum" into the left ventricle. During his lifetime postmortem examinations were not performed frequently. Thus, he fallaciously attributed some animal traits to human beings. For

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thirteen centuries following Galen's death very little progress was made in cardiology.

Leonardo da Vinci (1452-1519), the artist, accurately sketched the heart muscle and valves and clearly illustrated the coronary arteries. His drawings showed hardening of the coronary arteries.[4] Da Vinci correctly described the heart as composed of four chambers—two auricles and two ventricles. With the publication of *De Fabrica Humani Corporis* by Andreas Vesalius in 1543 the authority of Galen was refuted. Vesalius openly challenged the Galenic notion that there were pores in the interventricular septum.

Beginning of Cardiology

Krumbhaar[2] marks Antonio Benivieni's *De Abditis Causis Morborum* (1507) as the beginning of cardiac pathology. Benivieni was the first physician known to request permission of his patient's relatives for necropsies.[5] He reported 20 postmortem examinations and described "polyps" of the heart.

Herrick[6] feels that modern cardiology began with the publication of William Harvey's *De Motu Cordis et Sanguinis* in 1628. By means of vivisection, ligation, and perfusion he demonstrated that the heart acts as a muscular pump to propel the blood in a circular motion from arteries to veins. Harvey did not know about the capillary circulation. His discovery was not accepted immediately but later it had a momentous influence on the development of cardiology. Harvey was among the first to describe a ruptured left ventricle (which probably resulted from coronary disease).

Marcello Malpighi used the newly invented microscope to discover the missing link in Harvey's theory of circulation—the capillaries. He introduced histology into the science of pathology. In *De Polypo Cordis* (1686) he perpetuated the error of calling postmortem blood clots "polyps" of the heart. During this period, Bellini (1643-1704) and Drelincourt (1633-1697) observed calcification of the coronary arteries. Richard Lower (1631-1691) injected the coronary arteries with dye and noted anastomoses. He demonstrated that the bright red color of arterial blood resulted from inspired air. Although there were advances in cardiology during the sixteenth and seventeenth centuries, the notion that the heart was immune to disease prevailed. However, the stage was set for advancement with the introduction of gross and microscopic pathology.

Mitral Stenosis Described

According to Moon,[7] "The first to make serious contributions to our knowledge of diseases of the heart was Raymond de Vieussens of Montpellier." In *Traite Nouveau de la Structure et des Causes du Mouvement du Coeur* (1715) he described mitral stenosis with resulting dilatation of the right heart. He preceded Corrigan in describing the pulse in aortic regurgitation. He also traced the course of the coronary arteries and recognized that the pulse, palpitations and other symptoms often indicated organic heart disease. According to Long,[5] Giovanni Lancisi (1654-1720) in his two books, *De Subitaneis Morti* and *De Motu Cordis et Aneurysmatibus*, "Laid the foundation for a true understanding of the pathology of the heart." He was the first to distinguish between cardiac dilatation and hypertrophy. Also he described syphilitic heart disease and warty growths on the heart valves. Lancisi recognized heart failure resulting from sclerotic peripheral and coronary arteries. The sclerotic coronaries produced myocardial fibrosis. Jean-Baptiste Senac published *Tratie de la Structure, de l'Action et des Maladies du Coeur* (1749), the first textbook devoted entirely to diseases of the heart. He showed that the heart was not immune to inflammation, and described inflammation of the endocardium, myocardium, and pericardium. Senac stressed advancing age as a cause of heart disease. Morgagni described pathologic findings associated with heart pain in *De Sedibus et Causis Morborum* (1706). He was among the first to recognize heart block. Moreover, he listed chronic lung disease as a cause of heart disease.

Heberden's Angina Pectoris

William Heberden described a most unusual and devastating malady — angina

pectoris—in *Some Account of a Disorder of the Breast* (1772).[8] His bedside account of this illness is so lucid and concise that it has not been surpassed.

"But there is a disorder of the breast marked with strong and peculiar symptoms, considerable for the kind of danger belonging to it, and not extremely rare, which deserves to be mentioned more at length. The seat of it, and sense of strangling, and anxiety with which it is attended may make it not improperly be called angina pectoris.

"They who are afflicted with it are seized while they are walking, (more especially if it be up hill, and soon after eating) with a painful and most disagreeable sensation in the breast, which seems as it it would extinguish life, if it were to increase or continue; but the moment they stand still, all this uneasiness vanishes.

"In all other respects, the patients are at the beginning of this disorder, perfectly well and in particular have no shortness of breath, from which it is totally different. The pain is sometimes situated in the upper part, sometimes in the middle, sometimes at the bottom of the os sterni, and often more inclined to the left than to the right side. It likewise very frequently extends from the breast to the middle of the left arm. The pulse is, at least sometimes, not disturbed by this pain, as I have had opportunities of observing by feeling the pulse during the paroxysm. Males are most liable to that disease, especially such as have passed their fiftieth year."

* * *

"The termination of the angina pectoris is remarkable. For, if no accidents intervene, but the disease goes on to its height, the patients all suddenly fall down and perish almost immediately. Of which indeed their frequent faintness, and sensation as if all the powers of life were failing, afford no obscure intimation."

Heberden did not associate anginal symptoms with diseased coronary arteries. He remarked in *Commentaries on the History and Cure of Diseases* that, "On opening the body of one, who died suddenly of this disease, a very skillful anatomist could discover no fault in the heart, in the valves, in the arteries, or neighbouring veins, excepting small rudiments of ossification in the aorta." This may have resulted from faulty anatomical technic or observation, or perhaps this autopsy involved one of those rare cases of angina pectoris which was not associated with advanced coronary disease. An earlier account of angina pectoris is found in the *Life of Edward Earl of Clarendon*.[9]

Ossification Studied

Heberden's account of angina pectoris attracted the attention of John Hunter, John Fothergill, Edward Jenner, Caleb Hillier Parry, and Allen Burns, who made noteworthy contributions about the disease. John Fothergill in 1776 published *Farther Account of the Angina Pectoris* in which he described a 63-year-old man with angina who died during "a sudden and violent transport of anger." John Hunter performed the necropsy and reported, "The heart to external appearance was also sound; but upon examination, I found that its substance was paler than common, more of a ligamentous consistence, and in many parts of the left ventricle it was become almost white and hard, having the appearance of a beginning ossification. The two coronary arteries, from their origin to many of their ramifications upon the heart, were become one piece of bone." Neither Fothergill nor Hunter associated the coronary pathology with angina.

Edward Jenner, best known for his discovery of smallpox vaccination, in the early 1770's observed ossified coronary arteries in patients dying from angina pectoris. He did not publicize his findings because his former teacher, John Hunter, in the meantime had developed the dreaded symptoms of angina pectoris. Hunter once remarked: "My life is in the hands of any rascal who chooses to annoy and tease me." This proved true for he died in 1763 after becoming angry during a board meeting at St. George's Hospital. An account of his

illness and postmortem examination are recorded by Everard Home in *A Treatise on the Blood, Inflammation, and Gun-shot Wounds* by the late John Hunter. Hunter's coronary arteries were described by Jenner as, "Boney tubes, which were with difficulty divided by the knife."

In *Syncope Anginosa* (1799) Caleb Parry associated chest pain with myocardial weakness resulting from inadequate coronary blood flow. Parry also first associated heart disease with thyrotoxicosis. Allen Burns correlated the findings in ischemia of the ligated forearm with the mechanism of angina in the presence of ossified coronary vessels. In *Observations on Some of the Most Frequent and Important Diseases of the Heart* (1809) he established relative cardiac ischemia as the cause of anginal symptoms. Burns stated, "When, therefore, the coronary arteries are ossified, every agent capable of increasing the action of the heart, such as exercise, passion and ardent spirits, must be a source of danger."

Nervous Theory

Rene Theophile-Hyacinthe Laennec's, *Traite de l'Ascultation Mediate,* (1819) introduced the stethoscope as a method for diagnosing diseases. Although Laennec's primary interest was pulmonary diseases, he described normal heart sounds, heart murmurs, and pericardial friction rubs. He classified angina pectoris under neuralgia and reported that he did not find the coronary arteries ossified in this condition. Dock[10] feels the "coronary theory" of angina was weakened by Laennec's work and that the "nervous theory" replaced it in popularity for awhile.

Of the eminent Dublin clinicians in the nineteenth century, William Stokes was most interested in angina pectoris. In *Diseases of the Heart and Aorta* (1854) he stressed that the heart muscle was the key to cardiac pathology. He observed that patients with valvular defects often lived many years until the heart muscle weakened. His views on angina were: "Obstruction of the coronary arteries may or may not be present, and is probably not infrequent; but as a cause of angina its action is remote and its existence unnecessary." Robert Adams (1827) described myocardial infarction in a man of 68 whose coronary arteries were so completely ossified as to have no perceptible lumen except in the first inch after their origin. He described the patient's heart as, "Large, flabby and of a yellow color from fatty deposition." Peter Latham (1789-1875) thought that spasm of the coronary arteries might explain the clinical symptoms and the pathologic findings in angina. He differentiated between angina of effort and angina which produces death shortly after its onset. Richard Quain wrote *On Fatty Diseases of the Heart* (1850) and he thought that fatty myocardial degeneration often resulted from coronary artery disease.

Coronary Pathology

Toward the latter part of the eighteenth century the mecca of medicine shifted from France and England to central Europe. Some outstanding figures of this era who contributed to coronary pathology were Rudolf Virchow, Julius Cohnheim and Carl Weigert. This was a period in which postmortem examinations were frequent, animal experiments were popular, and research thrived.

Virchow established the concept of "cellular pathology." His contribution to cardiology was his work on thrombosis and embolism. Virchow recognized that inflammation was not the primary cause for phlebitis and he stressed the importance of slowing of the blood and perhaps changes in the blood elements themselves. He demonstrated in animals how peripheral thrombi form emboli which travel to, and lodge in, the pulmonary circulation.[11] Also, he discovered that clots from the left heart cast off emboli to the peripheral circulation and brain. When one considers the importance of thrombosis in coronary heart disease, Virchow's contribution is immediately apparent.

Panum was familiar with Virchow's studies. He thought it possible for an embolus to produce coronary blockage.

Panum reported the autopsy on Thorwaldsen, the famous artist, who died suddenly in the theater. An atheromatous plaque was found in the coronary artery. It had ruptured producing an atheromatous embolus which blocked the coronary artery lumen.

Carl Weigert (1880) was first to describe clearly the pathology of myocardial infarction. He offered a new explanation for what formerly had been called "chronic myocarditis." He described this process:

> "With artheromatous changes of the coronary arteries thrombotic or embolic occlusions of their branches not infrequently occur. If the closures result slowly, or, more important still, in such a way that the collateral channels, even though insufficient for nourishment, exist, there ensues a slower atrophy with disappearance of the muscle fibers, but without injury to the connective tissue. These destroyed muscle fibers are then replaced by fibrous tissue, and the so-called chronic myocarditis is nothing else but such a process.
>
> "If, however, a very sudden complete cutting off of the blood supply occurs in certain parts of the heart, yellow dry masses entirely similar to coagulated fibrin result. Here also, however, microscopic examination reveals almost no fibrous exudate, but often an apparently quite normal tissue but all muscle fibers and all connective tissue are devoid of nuclei. A reactive infiltration of round cells and spindle cells is present in the vicinity."

Weigert's Work Verified

During the same year of Weigert's report, Ernst Ziegler suggested the term, "myomalacia cordis," to describe softening of the heart muscle which follows arterial anemia. His descriptions of the gross and histologic changes are superb. In 1882 Karl Huber published an account of 17 cases in which he found that myocardial infarcts were caused by damaged coronary arteries. Von Leyden (1884) classified heart injury produced by coronary blockage as: (1) no myocardial change, death occurring so suddenly that time is not allowed for anatomic changes, (2) myomalacia cordis (infarction), (3) slower progressive closure of artery producing myofibrosis, either in disseminated islands, or in large confluent areas of fibrosis, or in the form of aneurysm, and (4) mixtures of these types. Rene Marie in his Paris thesis, *L'infarctus du Myocarde et ses Consequences* (1896), verified the work of Weigert, reviewed the work of others, collected a large series of cases, and divided these cases into clinical groups. He believed that ventricular rupture resulted from sudden coronary occlusion and not from slow developing ischemia.

Experimental work on the coronary arteries was first suggested by Marshall Hall in the Gulstonian Lecture (1842).[10] He described methods of ligation and injection to study sudden coronary death. Sir John Erichsen noted that ligation of the coronaries of dogs and rabbits caused cardiac standstill. The most influential coronary experiments were those by Julius Cohnheim and Anton von Schulthess-Rechberg (1881). They found that when dogs' coronary arteries were ligated cardiac arrest occurred after about 105 seconds. They felt that the coronary arteries were true end arteries (Endarterien) which if blocked would cause the heart to stop. They incorrectly concluded that in man if one of the larger coronary arteries was blocked sudden death was inevitable. Cohnheim emphasized that an autopsy examination was not complete unless the coronary arteries were examined.

Coronary Thrombosis

Malmsten (1861), of Sweden, reported the first case in which coronary thrombosis produced myocardial infarction. He stated, "The clot in the coronary artery (anterior branch of the left coronary) was undoubtedly old. The arterial obstruction had resulted in a slow softening of the muscular tissue. Finally rupture appears to have occurred slowly." Adam Hammer (1878) was first to diagnose coronary thrombosis in a living patient.[12] He reported, "What impressed me particularly about this case

and attracted my attention in the highest degree was the sudden appearance and the steadily progressive course of the collapse. I thought that only a sudden, progressively increasing disturbance in the nutrition of the heart itself such as a cutting off of the supply of nourishment could produce such changes as this case showed, and that such an obstruction could be produced only by a thrombotic occlusion of at least one of the coronary arteries." An autopsy examination confirmed his brilliant diagnosis.

George Dock[13] was the first American to diagnose this condition during life. The first accurate account of the symptoms of coronary thrombosis was made by Obrastzow and Straschesko of Russia in 1910.[14] They reported on three cases; in two cases the diagnosis was made during life and confirmed at autopsy.

Physicans were slow to recognize that diseased coronary arteries were a cause of heart disease. William Osler in the Lumleian Lectures on Angina Pectoris (1910)[15] stated, "Had Heberden listened to my first lecture he could have remarked very justly: 'Well! they have not got much ahead since my day.'" Osler included three types of findings: cases with syphilitic narrowing of the coronary ostia, cases associated with coronary thrombosis and obliterative endarteritis, and cases in which no lesions of the coronary vessels are found.

Electrocardiograms Prove Diagnoses

James B. Herrick published, "Clinical Features of Sudden Obstruction of the Coronary Arteries," in 1912.[16] In referring to this paper Herrick commented, "When it was presented it was discussed by only one person, there was no repercussion for six years. It had fallen like a dud."[17] He gave by far the best clinical description of this disorder and pointed out that it was neither rare nor always fatal. Herrick's classification included:

1. "Cases of instantaneous death, a group graphically described by Krehl, in which there is no death struggle, the heartbeat and breathing stopping at once.
2. Cases of death within a few minutes or a few hours after the obstruction. These are the cases that are found dead or clearly in the death agony by the physician who is hastily summoned. The attack is anginal, the pain severe, and the shock profound.
3. Cases of severity in which, however, death is delayed for several hours, days or months, or recovery occurs.
4. A group that may be assumed to exist embracing cases with mild symptoms, for example, a slight precordial pain ordinarily not recognized, due to obstruction in the smallest branches of the arteries."

Herrick published an additional paper in 1919, in which he described three cases diagnosed during life and confirmed at necropsy.[18] One case was a milestone in the history of coronary heart disease, for it was diagnosed by means of an electrocardiographic tracing. Herrick mentioned the work of his associate, Dr. Fred M. Smith, who studied electrocardiograms of dogs whose coronary arteries had been ligated.[19] He announced that he hoped this work would assist in interpreting abnormal electrocardiograms and in localizing the site of the heart lesions. Smith described characteristic T-wave changes when dogs' coronary arteries were ligated. Also, he found that ligation of the anterior descending branch of the left coronary artery is not necessarily fatal: only nine percent of his animals died. His findings supported those of Miller and Matthews[20] and helped refute the idea that sudden coronary artery obstruction inevitably resulted in death.

In 1920, Pardee reported the typical electrocardiographic findings of myocardial infarction in humans.[21] Using four cases of his own and Herrick's one published case, he described characteristic changes in the QRS-complex and the T-wave. Pardee felt that a patient having a history of anginal pain plus these electrocardiographic findings probably had an area of myocardial degeneration resulting from occlusion of the left coronary artery. He correctly hypothesized that there were typical electrocardiographic findings for

myocardial degeneration resulting from blockage of the right coronary artery.

Diagnosis Delayed

Before 1900 there was no universal agreement about the classification of diseases. According to Woolsey and Moriyama.[22] "Heart disease, as a mortality classification, has probably been abused more than any other cause-of-death category." Frequent revisions of *The Manual of the International List of Causes of Death* and the *Manual of the Joint Causes of Death* reflect changing concepts of the etiology of coronary disease. It was not until about 1926 that coronary disease began appearing frequently on death certicates in the United States.[22] Thus, death certificates are of limited value in tracing the historical course of coronary disease.

Paul Dudley White[3] recalled that before 1925 he rarely made the diagnosis of coronary thrombosis. He stated: "One of the reasons why coronary heart disease was under-diagnosed in the 1920's and possibly in the 1930's too was that if there was a recovery it was commonly said that if the patient recovered or lived more than a few years, the original diagnosis must have been wrong."

Conclusion

Some reasons why knowledge of coronary heart disease was retarded for so many years are: 1) until the seventeenth century the heart was considered immune to disease; 2) postmortem examinations were infrequent before the late eighteenth and early nineteenth centuries; 3) before Jenner and Parry postulated the "coronary theory" of angina pectoris, the coronary vessels were not examined routinely at necropsy; 4) the animal experiments of Cohnheim and Schulthess-Rechberg and others led clinicians to believe that obstruction of a coronary artery produced immediate death; 5) since there are so few physical findings in angina pectoris, Laennec and others thought it was of "nervous" origin; 6) other outstanding discoveries—notably those of Laennec, Pasteur and Koch—diverted the attention of medical men from coronary disease; and 7) until methods for diagnosing this condition in living patients were available and the clinical picture was correlated with pathologic findings, coronary disease was regarded as a medical rarity.

Available records provide no evidence that the ancients either had or recognized coronary disease. However, aortic atherosclerosis was found in Egyptian mummies. This "indirectly" suggests that mummies' coronary arteries, if available, might have shown atherosclerosis. Numerous articles about angina pectoris immediately following Heberden's classic description of angina imply that many physicians had observed angina before but had failed to publish their findings. Furthermore, rupture of the ventricles, calcification and ossification of the coronary arteries, inflammation of the heart and chronic myocarditis, myocardial fibrosis and necrosis, and heart block had been described before Heberden's time.

Prior to the nineteenth century medical practice was based on empiricism. Of necessity, physicians were most interested in the infectious diseases which were rampant. Chronic diseases, including heart diseases, were neglected. Even after the introduction of electrocardiographic diagnosis of coronary disease in 1919 and 1920, there was a lag of 15 to 20 years before most physicians were using this diagnostic aid. Better trained physicians, improved diagnosis, more accurate and complete certification of deaths, and a higher percentage of persons in the population surviving to old age (when coronary disease takes its greatest toll) have contributed to the "apparent" increase in coronary disease. Notwithstanding these factors, there seems to have been a "real" increase in coronary heart disease during the past 40 years.

It is sufficient to say that coronary heart disease was not diagnosed frequently before the 1920's. It is not within the scope of this brief account to carry the historical development of coronary heart disease farther. For who can say with certainty which discoveries of the past forty years will prove of indisputable historical significance?

REFERENCES

1. Hamburger, W. W.: The earliest known reference to the heart and circulation. *Am. Heart J.* 17:259-274, 1939.
2. Krumbhaar, E. B.: History of the pathology of the heart, in Gould, S. E. *Pathology of the Heart*, Springfield, Charles C. Thomas, 1953, p. 3-19.
3. White, P. D.: The coronaries through the ages. In *Arteriosclerosis* (A symposium presented by the Minn. Heart Assn. and the U. of Minn.), edited by Ancel Keys. Sept. 7, 8 and 9, 1955. pp. 71-78.
4. Riesman, D.: *The Story of Medicine in the Middle Ages*. New York, Paul B. Hoeber, 1935. p. 181.
5. Long, E. R.: *A History of Pathology*. Baltimore, Williams & Wilkins Co., 1928.
6. Herrick, J. B.: *A Short History of Cardiology*. Springfield, Charles C. Thomas, 1942.
7. Moon, R. O.: *Growth of Our Knowledge of Heart Disease*. London, Longmans Green, 1927.
8. Heberden, W.: Some account of a disorder of the breast. *Med. Tr. Roy. Coll. Phys.*, London 2:59-67, 1772.
9. Garrison, F. H.: *An Introduction to the History of Medicine*. Ed. 4, Philadelphia, W. B. Saunders Co., 1929.
10. Dock, G.: Historical notes on coronary occlusion; From Heberden to Osler. *J.A.M.A.* 113: 563-568, (Aug. 12), 1939.
11. Long, E. R.: *Selected Readings in Pathology from Hippocrates to Virchow*. Baltimore, Williams & Wilkins Co., 1929. pp. 290-295.
12. Hammer, A.: Ein fall von thrombotischem verschlusse einer der kranzarterien des herzens. Am. krankenbette konstatirt. *Wein. med. Wehnsehr.* 28:97-102, 1878.
13. Dock, G.: Some notes on the coronary arteries, *Med. & Surg. Rep.* 75:1, 1896.
14. Obrastzow, W. P., Straschesko, N. D.: Zur kenntnis der thrombose der koronararterien des herzens. *Ztsehr. f. klin. med.* 71:116-132, 1910.
15. Osler, W.: The Lumleian lectures on angina pectoris. Lecture II. *Lancet.* 1:839, 1910
16. Herrick, J. B.: Clinical features of sudden obstruction of the coronary arteries. *J.A.M.A.* 59:2015-2020, 1912.
17. Herrick, J. B.: Historical Note in Levy, R. L.: *Diseases of the Coronary Arteries and Cardiac Pain*, New York, Macmillan Co., 1936.
18. Herrick, J. B.: Thrombosis of the coronary arteries. *J.A.M.A.* 72:387-390, (Feb. 8), 1919.
19. Smith, F. M.: The ligation of coronary arteries with electrocardiographic analysis. *Arch. Int. Med.* 22:8-27 (July) 1918.
20. Miller, J. L., Matthews, S. A.: Effect on the heart of experimental obstruction of the left coronary artery. *Arch. Int. Med.* 3:476-484 (June) 1909.
21. Pardee, H. E. B.: An electrocardiographic sign of coronary artery obstruction. *Arch. Int. Med.* 26:244-257 (Aug.) 1920.
22. Woolsey, T. D., Moriyama, I. M.: Statistical studies of heart disease. II. Important factors in heart disease mortality trends. *Pub. Health Rep.* 63:1247-1273 (Sept.) 1948. ◄

207 Todd Building
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Poison Control Clearing House warns of bleach dispensers in automatic laundries. In Indiana, a patron, upon request, gave his seven and nine-year-old daughters nickels for soft drinks. He suddenly wondered where you could still get a bottle of pop for a nickel, and on investigation found his daughters just starting to sip on the bleach obtained from vending machines with a coin slot 42 inches from the floor.

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The Use and Abuse of Griseofulvin

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SINCE WILLIAMS et. al. (1958) and Blank and Roth (1959) published favorable reports with the use of griseofulvin in the treatment of human ringworm, this new antibiotic has undergone extensive investigation.

The optimal (standard) dosage has been 10 mgm/lb/day for children, and one gram daily for adults. Other dosage schedules have been tried, as will be noted later in this report.

This paper is a review of the effect of griseofulvin on the various types of ringworm, as reported in the literature, and results of griseofulvin treatment on the cases of tinea capitis seen at Marion County General Hospital.

Ringworm fungi are divided into three genera: Trichophython, Epidermophyton, and Microsporum. With the exception of Trichophyton rubrum, they respond in like manner to griseofulvin. These fungi have an enzyme which digests keratin, and they attack only the kerantinized structures. Griseofulvin is fungistatic and is deposited in the keratin; therefore, the cure rate depends on the rate of keratinization, and the time necessary for desquamation of infected keratinized structure. There is a considerable difference of response to griseofulvin, depending on regional localization of the fungus.

Tinea Pedis

Tinea pedis is often a complex entity, involving dyshidrosis, infection with other superficial pathogens, and superimposed contact dematitis.[1] Treatment of the intertriginous type has been that of intertrigo in general, and the vesiculobullous type is treated like a contact dermatitis.

Squamous ringworm of the feet is most frequently caused by Trichophyton rubrum, and is characterized by diffuse scaling, lack of inflammation, and extreme chronicity.[2] Tinea pedis is usually cured readily unless the offending organism is T. rubrum.[3] Griseofulvin is the treatment of choice in squamous T. rubrum tinea pedis[4] if treatment is desired. Opinion is divided as to whether griseofulvin offers any advantages over proper topical therapy in the treatment of interdigital and vesiculobullous types. Cure times varied from four to 24 weeks and longer in reported cases treated with griseofulvin.[5, 6]

This seems to emphasize the multiple etiologies of tinea pedis.

Tinea Corporis

Tinea corporis usually responds well to topical keratolytics, and unless caused by T. rubrum, ordinarily offers no difficulties. Opinion is divided as to whether griseofulvin offers any advantages over topical therapy.[4, 7] It does afford prompt relief of pruritus.[8] Reported cure times with griseofulvin have varied from one to ten weeks.[6, 9]

Tinea Cruris

Again, this is often a disease of multiple etiologies, and relative effectiveness of griseofulvin is disputed. Cure times reported average four to 12 weeks.[5, 6]

* From the Department of Dermatology, Marion County General Hospital: Boynton H. Booth, M.D., Chairman.

Tinea of the Hands

Ringworm of the hands has improved within a week with griseofulvin,[9] but there has been no uniformity of response, due to concomitant eczema or monilia.[10] The vesicular type does not usually pose a treatment problem, whereas the squamous type was refractory to treatment prior to griseofulvin.[2]

Onychomycosis

Prior to griseofulvin, ringworm of the toenails was incurable, while ringworm of the fingernails was occasionally cured by surgical avulsion.[2] Topical therapy was unavailing. Griseofulvin has proven the treatment of choice in onychomycosis.[4] First evidence of clearing may be noted in the fingernails in two weeks, and in three weeks in the toenails.[6] Cure time averages three to four months for fingernails, and six months to a year for toenails.[11, 12] Surgical avulsion of the nails shortens length of treatment.[13]

Tinea Capitis

Four different organisms are the common causes of tinea capitis in Indiana: Microsporum audouini, canis, and gypseum, and Trichophyton tonsurans.

M. audouini is the most common type, and before griseofulvin it was a highly refractile disease, involution rarely occurring in less than three months, and some ten percent persisting for two or more years.

M. Canis tends to have a shorter course, and often develops an inflammatory reaction (kerion) which shortens the course further. The average duration was five weeks to 12 months.[2]

M. gypseum is nearly always inflammatory and usually lasted two or three months.

Trichophyton tonsurans is a recent arrival to Indiana from Mexico and the southwest United States. Before griseofulvin it lasted four to 12 months or longer.[2, 14]

Topical therapy of tinea capitis is ineffective, but the use of an antifungal ointment, shampooing, and clipping the hair may help prevent dissemination of spores.[2]

From Sept., 1959, to Jan., 1961, all cases of tinea capitis seen at Marion County General Hospital were treated with griseofulvin and topical therapy (daily use of a keratolytic and shampoo). All the patients were children. The results are tabulated (Table 1). Cure time on the standard dosage was about four weeks, which corresponds to that found by other investigators.[15] Shaving involved areas did not shorten cure time in our series.

Although our stat dosage series was small (Table 1), Kirk and Miles treated 43 children with a stat dosage of about 0.1 gram per pound of body weight. They had a 50% cure rate in eight weeks. This rate improved slightly if the dose was repeated in four weeks.[16]

Favus

Tinea capitis caused by Trichophyton schoenleini responded only to x-ray epilation prior to the use of griseofulvin. In one report, 38 cases were treated with griseofulvin, and all but five were cured in four to five weeks.[17] In a series of eight cases, all were cured in two months. Four of these had previously been treated unsuccessfully with x-ray.[18]

Use of Griseofulvin in Entities Other than Ringworm

Pruritus ani et vulvi, pustular bacterid, psoriasis, dyshidrosis,[7] and many other skin eruptions have been treated with griseofulvin without success. Griseofulvin is of no value in the treatment of erythrasma, tinea versicolor, or moniliasis.[15] Indeed, development of moniliasis and exacerbation of pre-existing moniliasis has been reported in patients treated with griseofulvin for ringworm.[4, 10]

No benefit has been found from griseofulvin in mice experimentally infected with Histoplasma capsulatum, Blastomyces dermatitidis, Cryptococcus neoformans, and Coccidioides immitis.[19] Excellent or good results have been reported in several cases of sporotrichosis. Favorable results have been reported in mycetoma due to Nocardia brasiliensis and in deep granulomatous trichophytosis.[20] Improvement was noted in two cases of chromomycosis due to Hermodendrum Pedrosoi.[21]

	M. audouini	M. canis	M. gypseum	T. tonsurans
1. # treated with 10 mgm/lb/d dosage	18	6	0	6
2. adequate followup (#)	13	6		3
3. average time of cure of above (#2)	4 wks.	3 and ⅔ weeks		3 and ⅔ weeks
4. # treated with 3 grams stat dosage	5	0	1	3
5. adequate followup (#)	3		1	1
6. average time of cure of above (#5)	5½ wks.			2 wks.
7. failures	1		1	0
8. # treated with 5 grams stat dosage	2	0	0	0
9. adequate followup (#)	1			
10. average time of cure of above (#9)	2 wks.			
11. failures	0			

TABLE 1

Toxicity

In a preliminary study of the effect of griseofulvin on tinea capitis,[22] it was reported that side effects were minimal, and that in cases studied at Marion County General Hospital, blood, urine, and liver function were unaffected. Some investigators, however, have noticed occasional leukopenia[6, 23] and lymphopenia.[24] Clinical side effects continue to be only occasional and benign, and include headache, anorexia, nausea, abdominal cramps, urticaria, morbilliform rash, etc. There has been no effect on spermatogenesis.[5, 25]

Possibly the most significant, though very rare, reaction to griseofulvin is an ill-defined slowing of reaction time and interference with coordinated movements, particularly if the dose is raised to two grams per day. In these cases, lowering of the dose to one gram per day is curative.[15] Although griseofulvin is a metabolic product of several penicillium species,[22] there is no evidence of a common antigenicity or cross sensitivity between penicillin and griseofulvin. The species of penicillium from which the two derive are different, and the chemical structure of griseofulvin has no basic relationship to that of penicillin. Also, penicillin is the most common cause of drug sensitivity, which is in contradiction to the sparsity of references to allergic reactions from griseofulvin.[26]

Diagnosis of Ringworm Infections

It is impossible to make a diagnosis of ringworm on morphologic grounds, and other methods must be utilized before expensive and possibly senseless therapy is started. There are three methods of diagnosis: Wood's light, culture, and direct microscopic examination. Wood's light is applicable only in Microsporum audouini and canis tinea capitis. Cultures are required for species identification, but management of the case is not usually handicapped in absence of this identification. The easiest means of establishing the diagnosis is by direct microscopic examination of scrapings of the involved skin, hair, or nails.

A few drops of a ten to fifteen percent solution of potassium hydroxide is added to the material and then allowed to sit for about 20 minutes (or less if the slide is warmed slightly) to allow the skin to clear and enable the fungal elements to be visualized. Nail fragments may require several hours of digestion in KOH solution. Two types of involvement are seen in the hair: ectothrix, or presence of a sheath of spores around the hair, and endothrix, or presence of spores entirely within the hair. Ringworm fungi in scrapings from the skin and nails appear as branching filaments (hyphae). Arthrospores (short, oblong elements derived from fragmentation of hyphae) are sometimes found on examination of nails.

Additional Comment

Even though treatment response has improved since the advent of griseofulvin, Trichophyton rubrum infections have contin-

ued to be chronic and resistant to therapy.[15] Possibly persons harboring a T. rubrum infection do so because they possess an immunologic defect which is not corrected by griseofulvin. They would therefore still be equally susceptible after griseofulvin had cleared them, and would become infected again rather quickly from their environment. It may be necessary to use griseofulvin to "control" T. rubrum patients rather than to cure them for all time.[27] Although acquired resistance of ringworm fungi to griseofulvin does not yet seem to be a significant problem,[15] resistant strains of Trichophyton mentagrophytes, rubrum, tonsurans, and schoenleini, Microsporum audouini and canis, and Epidermophyton floccosum have developed in vitro.[28, 29]

Summary

Griseofulvin is a safe, effective treatment for ringworm infections.

It is the treatment of choice in tinea capitis and onychomycosis.

The dosage is 10 mgm/lb/day for children and one gram daily for adults.

With the exception of a few deep mycoses, it is of no value in any other condition.

For this reason, diagnosis must be established before long and expensive therapy is undertaken.

Ringworm cannot be diagnosed on clinical appearance; the simplest method of diagnosis is potassium hydroxide examination of skin, hair, or nails.

REFERENCES

1. Goldman, L., Preston, R. H., Schwarz, J.: Topical Griseofulvin Therapy of that which is called Tinea Pedis, Acta Dermatovener (*Stockh*) 39:454-60, 1959.
2. Pillsbury, D. M., Shelley, W. B., Kligman, A. M.: *Dermatology*, Philadelphia, W. B. Saunders Company, 1956.
3. Conant, N. F., Smith, D. T., Baker, R. D., Callaway, J. L., Martin, D. S.: *Manual of Clinical Mycology*, Ed. 2, Philadelphia, W. B. Saunders Company, 1954.
4. Pardo-Castello, V.: The Treatment of Dermatomycoses with Griseofulvin, *A.M.A. Archiv. Derm.*, 81:772-5, May 1960.
5. Johnson, S. A. M., Cameron, G. H.: Laboratory and Clinical Observations in the Therapy of Dermatomycoses with Griseofulvin, *Antibiotic Annual*, 7:687-92, 1959-1960.
6. Robinson, M. M.: Griseofulvin Therapy of Superficial Mycoses, *Antibiotic Annual*, 7:680-6, 1959-1960.
7. Andrews, G. C., Domonkos, A. N., Silva, Jr., A.: Griseofulvin in Dermatomycoses, *J.A.M.A.*, 173:100-2, 6 Aug., 1960.
8. Levin, H. B., Alden, H. S., Ajello, L.: Use of Griseofulvin in Office Practice, *A.M.A. Archiv. Derm.*, 81:827-32.
9. Welsh, A. L., Ede, M.: Oral Therapy with Griseofulvin, Preliminary Report and Review of the Literature, *Ohio Med. J.*, 56:339-44, March 1960.
10. Buchanan, R. N., Jr., Hamilton, J. R.: Results with Griseofulvin in the Treatment of Fungal Infections, *J. Tenn. Med. Ass.*, 53:427-30, Oct. 1960.
11. Dillaha, C. J., Jansen, G. T.: Dosage Requirements of Griseofulvin in Onychomycosis Due to Trichophyton Rubrum, *A.M.A. Archiv. Derm.*, 81:790-6, May, 1960.
12. Reisner, R. M., Horner, R. S., Newcomer, V. D., Sternberg, T. H.: Onychomycosis of the Feet —Treatment with Griseofulvin, *Calif. Med.*, 93:217-23, Oct. 1960.
13. Newcomer, V. D., in Round Table Discussion, *A.M.A. Archiv. Derm.*, 81:866-78, May, 1960.
14. Gray, H. R., Dalton, J. E., Starcs, H.: Trichophyton Tonsurans Infection of the Scalp in Central Indiana, *J.I.S.M.A.*, 53:75-80, Jan., 1960.
15. Pillsbury, D. M., Shelley, W. B., Kligman, A. M.: *Cutaneous Medicine*, Philadelphia, W. B. Saunders Company, 1961.
16. Kirk, J., Miles, V. E.: Use of Griseofulvin in the Therapy of Tinea Capitis in Children, *A.M.A. Archiv. Derm.*, 81:807-12, May, 1960.
17. Pettit, J. H. S.: Griseofulvin and Favus, *Brit. J. Derm.*, 72:179-84.
18. Kopp, H., Kvorning, S. A., Marcussen, P. V.: The Treatment of Favus with Griseofulvin, *Brit. J. Derm.*, 72:173-8.
19. Emmons, C. W.: Failure of Griseofulvin to Control Experimental Systemic Mycoses in Mice, *A.M.A. Archiv. Derm.*, 81:700-1, May, 1960.
20. Latapi, F.: Griseofulvin in the Treatment of Some Deep Mycoses, *A.M.A. Archiv. Derm.*, 81:841-7, May, 1960.
21. Gonzalez-Ochoa, A., Ahumada-Padilla, M.: New Schemes in the Treatment of Dermatophytoses with Griseofulvin, *A.M.A. Archiv. Derm.*, 81:833-7, May, 1960.
22. Chivington, P. V., Gray, H. R., Wolf, R. L., Dalton, J. E.: Griseofulvin—An Advance in the Treatment of Tinea Capitis, *J.I.S.M.A.*, 53:1120-3, June, 1960.

23. Meara, R. H.: Tinea Capitis Treated with Griseofulvin, *Brit. J. Derm.*, 72:169-72.
24. Cowan, M. A.: Intermittent Treatment of Trichophyton Rubrum Infections with Griseofulvin, *Brit. J. Derm.*, 72:185-7.
25. MacLeod, J., Nelson, W. O.: Griseofulvin and Human Spermatogenesis, *A.M.A. Archiv. Derm.*, 81:758-9, May, 1960.
26. Quero, R.: Allergic Reaction to Griseofulvin, *J. Invest. Derm.*, 34:283-4, May, 1960.
27. Wilson, J. W., Discussion On: Williams, D. I.: Griseofulvin and Trichophyton Rubrum Infections, *A.M.A. Archiv. Derm.*, 81:769-71, May, 1960.
28. Robinson, R. C. V., Fericot, T. N., Robinson, H. M., Jr.: In Vitro Resistance Studies with Griseofulvin, *A.M.A. Archiv. Derm.*, 81:681-3, May, 1960.
29. Aytoun, R. S. C., Campbell, A. H. Napier, E. J., Seiler, D. A. L.: Mycological Aspects of Action of Griseofulvin Against Dermatophytes, *A.M.A. Archiv. Derm.*, 81:650-6, May, 1960. ◄

From *The Journal* Fifty Years Ago

. . . The important point in the consideration of Glenard's disease is diagnosis. It is a disease that is present in many people. On the other hand, it is a disease that is frequently overlooked. Do not think for a moment that people suffering from Glenard's disease present symptoms. Many of them carry a stomach in their pelvis without any symptoms, and look at you in horror when you say there is such a position of the organs. I wish we had an agent like salvarsan for these serious cases of Glenard's disease, which you all know do not readily yield to treatment of any kind.

As to the various methods if it is not possible to make a skiagram, I am not opposed to the inflation of the stomach by the use of tartaric acid and bicarbonate of soda, but you should note the position of the stomach; you should make a careful examination of the patient and obtain a careful clinical history, and be absolutely certain that there does not exist a gastric ulcer or a deep duodenal ulcer. As I say, I am not opposed to the method, but be absolutely sure that you do not have the conditions I mention present, because you will be apt to have an accident which will not be to your liking. . . .—A. B. Graham, M.D., in discussion of "Symptoms and Diagnosis of Ptosis of Organs of the Upper Abdominal Zone," by Charles R. Sowder, M.D., *JISMA*, April, 1912.

To Intubate or Not to Intubate— The Question of Anesthesia for Tonsillectomy

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THE BRILLIANT ADVANCES in surgery since World War II owe much of their success to progress in the field of anesthesiology. New anesthetic drugs and technics have been introduced, and a large number of trained anesthesiologists have appeared to take advantage of them. Otolaryngology has not remained stationary either, but has moved steadily ahead extending the scope of the field. These new frontiers of medical knowledge, however, have had little influence in the management of the patient who is to have a tonsillectomy. Here surgery and anesthesia amble along happily, as they did during previous generations. This conservatism admittedly, is picturesque, but it is astonishing that the tonsillectomy operation has remained inviolate in its stand against change, despite the acceptance of the inevitable march of progress with other otolaryngologic operations.

The surgical removal of tonsils and adenoids is considered by many individuals to be a minor operation. It is never a minor anesthetic! Multiple benign lymphoid tumors are excised from the pharynx. Hemorrhage, which accompanies the operation, may vary from a few milliliters to a few hundred milliliters. The operative site is in the patient's natural airway, in juxtaposition to the larnyx. Laryngeal obstruction by the base of the tongue or by reflex spasm of the larynx is an everpresent hazard. Blood from the operative site has ready access to the tracheobronchial tree. The potential for fatal hypoxia is always present, and death from hemorrhagic shock is not unknown. The frequency of the operation has allowed familiarity to develop, but this should not be allowed to breed contempt.

Not A New Operation

If tonsillectomy was a new operation, the surgeon and anesthesiologist would meet to contemplate the requirements for a suitable anesthetic technic. The patient's safety would be the primary consideration. A patent airway during surgery and until the patient had awakened from anesthesia would be an obvious and essential prerequisite. Methods to prevent reflex laryngospasm and the aspiration of blood into the trachea would have to be established. Reflexes should return promptly following the operation so that the patient could have natural protection against the danger of aspiration during postoperative vomiting or hemorrhage. The surgeon would be firm in his conviction that he should have ready access to the operative site. The anesthesiologist would insist that he should be able to have simple and adequate control of the airway and of the depth of anesthesia. He would like to offer the patient the advantages of the new anesthetic drugs which have been introduced.

Tonsillectomy, however, is not a new operation. A previous generation of physicians, who knew very little about endotracheal anesthesia, evolved a method to maintain anesthesia during the operation by insufflating ether into the pharynx. What was good enough for our fathers appears to good enough for their grandchildren, since the majority of children

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who undergo tonsillectomy are anesthetized by this technic.

Methods

Two methods are commonly employed to insufflate ether during tonsillectomy. In the older method an ether-air mixture is blown through a hollow hook placed at the entrance to the oral cavity. From thence the anesthetic passes back to the larynx. The tonsil sucker, which is in continuous use throughout the operation, diverts much of the anesthetic mixture from its intended path. The patient, therefore, must be well saturated with ether during the induction of anethesia, and high concentrations of ether must be insufflated so that some will remain to reach the larnyx. Anesthesia must be maintained at sufficient depth to allow surgery to proceed without pharyngeal movement. The laryngeal and cough reflexes must be obtunded to prevent laryngospasm and to prevent coughing as blood trickles through the larynx into the trachea.

The airway lies at the mercy of whoever manipulates the tonsil sucker. If the tongue is allowed to fall back or is pushed against the larynx to afford better surgical exposure, complete or partial airway obstruction will occur. This is unfortunate, but it is not always convenient to correct this when adequate exposure of the operative site is essential. On occasions the signs of asphyxia are too obvious to be ignored, and the operation is halted so that the tongue can be pulled away from the larynx allowing the patient to admit a source of oxygen into his lungs. This will be allowed more frequently if the anesthetist, in addition to maintaining careful observation of the patient, assists the surgeon during the operation, since he can attempt to open the airway whenever it appears opportune.

The Davis gag was introduced in an attempt to improve this method. This instrument is a mouth gag which incorporates a tongue retractor. The retractor holds the tongue up and away from the larynx and the surgical field. The anesthetic agent is insufflated at the back of the pharynx, beyond the reach of the tonsil sucker, through a hollow tube attached to the tongue retractor. This method has more to commend it, since it removes the base of the tongue from the larynx, and facilitates the maintenance of a steady level of anesthesia. It does not, however, offer protection against laryngospasm or the aspiration of blood into the trachea. Anesthesia must be maintained at sufficient depth to obtund the laryngeal reflex and to allow blood to enter the trachea without provoking the cough reflex. The surgeon must change his technic by standing at the head of the table instead of at the side of the patient's head.

Endotracheal Anesthesia

Endotracheal anesthesia overcomes many of the objections to the insufflation technic. A patent airway is possible at all times so that the patient is well oxygenated and maintained at a steady level of anesthesia. Laryngospasm is prevented, and blood is prohibited from the tracheobronchial tree. The newer anesthetic drugs can be administered to the patient safely and their respiratory depressant effects are readily overcome. These drugs allow more rapid and pleasant induction of anesthesia, more rapid awakening following the operation, less postoperative nausea and vomiting, and a non-explosive anesthetic technic.

The disadvantages of endotracheal anesthesia have been grossly exaggerated. Laryngeal edema rarely follows endotracheal intubation. Only one child at Indiana University Medical Center has required tracheostomy for this complication during the past nine years. The trachea of several thousand children have been intubated during this period. Laryngeal granulomata are another possible difficulty but again this has not appeared as a problem, since no children have been referred to the department of anesthesiology with this complication. The most obvious hazard is the loosening of teeth. Children in this age group frequently have loose temporary dentition. Their presence should be detected preoperatively, and removed following the induction of anesthesia if they are likely to be dislodged by the anesthesiologist during laryngoscopy, or by the surgeon during the insertion of the mouth

gag. The aspiration of teeth into the lungs must be prevented. The single occasion, at this institution, when this difficulty occurred followed the insertion of a metal oropharyngeal airway, not following laryngoscopy. Hoarseness and sore throats are not infrequent sequelae following endotracheal anesthesia for other types of operations. It may be difficult, however, to award the blame justly following a tonsillectomy. Endotracheal intubation, when performed by a trained and experienced anesthesiologist is not a dangerous procedure. There should be no hesitation in providing a patient with its benefits, when its employment offers greater safety.

Encroaches Upon Operative Field

The only basis for serious complaint by a surgeon revolves about his belief that the endotracheal tube encroaches upon the operative field. There is no question that it does this, but it does not make the surgical manipulations significantly more difficult. Some experienced otolaryngologists will not operate without the comforting presence of an endotracheal tube, and even junior residents are able to operate efficiently in its presence. It is difficult to accept that an experienced surgeon would have any cause for complaint, if his initial prejudices could be overcome, and he accustomed himself to the slight change in his technic.

All the principles of modern anesthetic practice demand the use of endotracheal tubes during tonsillectomy operations. The contraindication to the technic remains a deficiency in the skill of the anesthetist. Surgeons should familiarize themselves with the circumstances of the operation during endotracheal anesthesia, so that when the assistance of a skilled anesthesiologist is available, this eminently satisfactory method can be employed. ◄

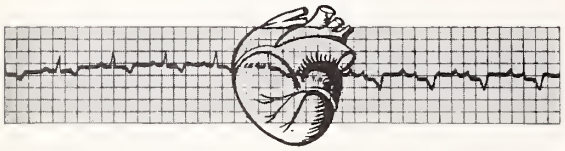
Diets for Children with Phenylketonuria

Phenylketonuria (PKU) is now recognized as one cause of mental retardation. If this metabolic disturbance can be identified in the early weeks or months of life by urine or serological tests, special diet low in phenylalanine offers a good chance to prevent brain damage and the associated symptoms of mental retardation.

The special low phenylalanine diets are relative expensive depending on the size and age of the child. In instances of families financially unable to provide the diet for their children with PKU, the Indiana State Board of Health, in cooperation with the Indiana State Department of Public Welfare, will assist these families in procuring the diet. This program has been endorsed by the Council of the Indiana State Medical Association.

Further information on the above program may be obtained from the Division of Maternal and Child Health, Indiana State Board of Health, 1330 West Michigan Street, Indianapolis, or the Crippled Children Services, Indiana State Department of Public Welfare, 702 State Office Building, Indianapolis.

Electrocardiogram of the month



Presented as a regular feature of The JOURNAL, Electrocardiogram of the Month is a series of short talks on cardiovascular diagnosis and treatment, edited by the staff of the Robert M. Moore Heart Clinic of the Marion County General Hospital, Indianapolis.

Electrical Alternans Due to Pericardial Effusion

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ELECTRICAL ALTERNANS is an electrocardiographic abnormality manifest by alternation of magnitude or direction of either P, QRS or T or any combination of these waves and is usually seen in presence of heart disease or is caused by toxic effects of drugs on the myocardium. It is a very useful finding in an occasional case of pericardial effusion. We had the opportunity to study three such cases, all occurring in patients with pericardial effusion and interestingly enough the effusion was hemorrhagic in all three of the patients.

The patient whose electrocardiogram is reproduced in Figure 1, was a 54-year-old man with massive pericardial effusion secondary to metastatic invasion of the pericardium. The alternans of the QRS is quite obvious. For example the first, fifth, seventh and ninth QRS complex in lead I are of the RS configuration while the remainder of the ventricular complexes are of the R variety. A more complex alternans is seen in precordial leads, the complexity being well manifested in V6. In this lead the QRS complex shows three different configurations as exemplified by the first three QRS complexes.

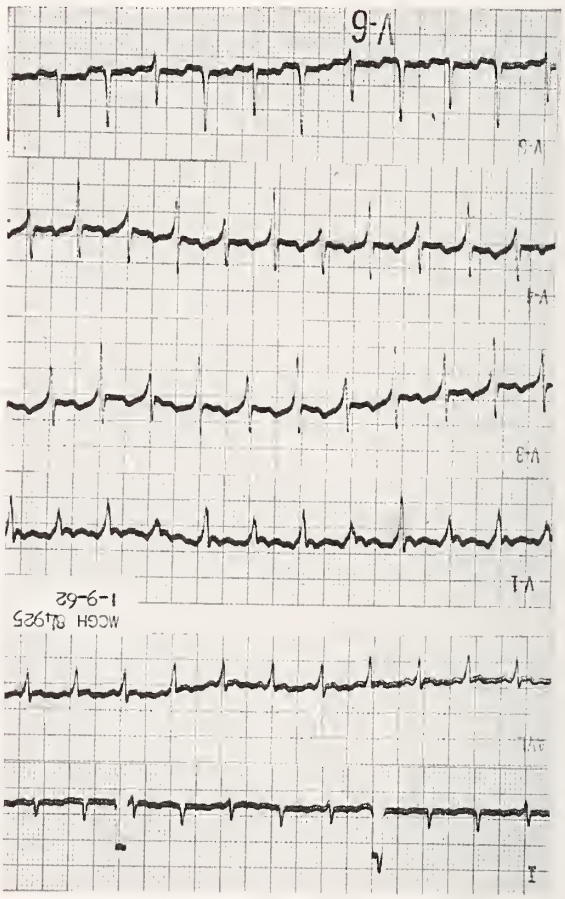


FIGURE 1

THIS FIGURE shows the alternans of the QRS complexes. ◄

* From the Robert M. Moore Heart Clinic, Marion County General Hospital and the Department of Medicine, Indiana University School of Medicine, Indianapolis, Indiana.

Supported by the Herman C. Krannert Fund of the Indiana Heart Association, Indiana State Board of Health, Indianapolis, Indiana.

The Journal of the Indiana State Medical Association

MEDICAL ESSAY CONTEST

for

Interns and Residents of Indiana Hospitals

During the intern and resident year of 1961-62 The Journal is sponsoring a medical essay contest open to interns and residents of hospitals in Indiana. The subject matter will be limited to clinical experience observed primarily in the teaching hospital of the author. Presentations may contain up to 4,000 words and preferably should be illustrated with clinical pictures, graphs or tables.

A first prize of $100.00, a second price of $75.00 and a third prize of $50.00 will be awarded. All entries are eligible for consideration for publication in The Journal.

Manuscripts will be judged by a prize award committee selected by the Editorial Board of The Journal and by the Dean, Indiana University School of Medicine.

Manuscripts should be prepared in accordance with the specifications outlined on the masthead page of The Journal.

Entries must be submitted prior to May 1, 1962.

The manuscript itself is to be identified only by the title. The author's name must not appear in the manuscript. Instead, a special title page bearing the title and the author's name and address should accompany the paper. Mail entries to Mr. James A. Waggener, 1021 Hume Mansur Bldg., Indianapolis 4.

LABORATORY MEDICINE

Published periodically as a review of clinical laboratory procedures suitable for laboratories with minimal equipment.

Acid-Fast Stain

A. WENDELL MUSSER, M.D.*

MYCOBACTERIA ARE ELONGATED, filamentous organisms belonging to the order Actinomycetales and the class Schizomycetes. Mycobacterium tuberculosis is probably the most important member of this group in this country. This deadly pathogen has been isolated from every organ of the body; therefore, in most diseases having as a basic characteristic, chronicity, Mycobacterium tuberculosis should be suspected. The relatively high concentration of lipoprotein complexes in this genus results in a physicochemical combination with fuchsin, a dye that resists decolorization by acid alcohol—hence the term acid-fast.

Tubercle bacilli are slender, straight or slightly curved rods with rounded ends. The bacilli vary in width from 0.2 to 0.5 microns and in length from 1 to 4 microns. On occasion true branching can be demonstrated in old cultures and sometimes in material from caseous lymph nodes. The bacilli are gram-positive and acid-fast. They are nonmotile, nonsporogenous, and have no capsules. The bacilli frequently appear beaded in acid-fast stains, an artifact apparently produced by precipitation of free dye as globules. Tuberculosis in man is caused in over 90% of cases by the human strain of the organism. The bovine strain affects man in less than 10% of cases of human tuberculosis, and the avian strain is quite rare as an etiologic agent of this disease in man.

Tuberculosis is an infectious disease caused by the tubercle bacillus. The disease is widespread among men and animals, uniformly fatal in some species, seldom if ever in others; acute and generalized in some persons, chronic and localized in others. Pathologically, the disease is characterized by inflammatory infiltration, tubercles, caseous necrosis, abscesses, fibrosis and calcification.

Slow Growth on Media

Other acid-fast organisms often are seen in clinical material. Morphologic and biochemical characteristics differentiate these from the pathogenic mycobacteria. The saprophytic acid-fast bacilli grow readily on ordinary media at room temperature. Mycobacterium tuberculosis will not grow on the usual type of media but do grow slowly on inspissated serum, coagulated egg, or potato medium after two to three weeks' incubation at 37° C. The addition of a small quantity of glycerin inhibits the saprophytic groups, has little or no effect on the bovine

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bacillus, but accelerates appreciably the growth of the human and avian strains.

Mycobacterium tuberculosis is an obligate aerobe and will not grow in absence of oxygen. Most saprophytic acid-fast bacteria produce chromogenic colonies. The color may be yellow, pink, organge or brick-red. On differential media and with long incubation some bovine strains will produce a pink color. When grown on ox serum the human bacillus frequently shows yellow or orange-yellow colonies. Virulent strains of human and bovine bacilli grow in strands or cords while avirulent dissociates of the same strains show no particular arrangement of the organisms.

Virulence of an individual strain of Mycobacteria is usually proved by animal innoculation. The guinea pig, the mouse, and the rabbit are the most useful animals for laboratory studies. Human type is most virulent for the guinea pig; the bovine type the guinea pig, rabbit, calf and vole, and the avian type the fowl primarily and to a less degree the rabbit and a lesser degree the calf; and the murine type the vole. The rabbit usually is employed for the differentiation of human and bovine strains.

The hallmark of prevention is detection. Awareness of simple methods of detection is in many cases as important as the characteristic of the fully developed disease. Detection is necessary not only for therapy but also for prevention. Thus the importance of a simple technic which is applicable to many biologic fluids and exudates is obvious. Specialized help should be obtained in definitely identifying Mycobacterium tuberculosis.

METHOD

Acid-fast Stain

(Kinyoun Carbolfuchsin Acid-fast Stain)

Formula:

Basic fuchsin	4 Gms.
Phenol	8 ml.
Alcohol (95%)	20 ml.
Distilled water	100 ml.

Dissolve the basic fuchsin in the alcohol and add the water slowly while shaking. Melt the phenol in a 56° C water bath and add 8 ml. to the stain with a pipette.

Prepare a smear of the material to be examined. Be sure that the smear is not too thick. Fix the smear by passing the slide through a flame a few times until the smear is relatively dry. Flood the fixed smear with stain and allow to stand for 3 to 5 minutes. Wash with water and decolorize by dropping acid alcohol (3% HCl in alcohol) over the smear until the alcohol flows colorless from the slide. Wash with water. Counterstain with dilute solution of methylene blue for one minute. Wash with water, blot, dry, and examine. Acid-fast bacteria stain red; others stain blue.

Methylene Blue Stain

Formula:

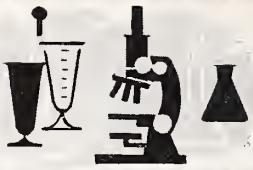
Methylene blue	0.3 Gms.
Ethyl alcohol (95%)	30.0 ml.
When dissolved add	
Distilled water	1000.0 ml.

By the addition of a detergent or wetting agent, the staining of acid-fast organisms may be accelerated.

REFERENCES

1. Demoulin-Brahy, L.: Recent data on atypical mycobacteria. *Acta Tuberc. Belg.* 52:214-224, 1961.
2. Kinyoun, J. J.: A note on Uhlenhuth's method for sputum examination for tubercle bacilli. *Am. J. Pub. Health* 5:867-870, 1915.
3. Koch, Robert: Die Aetiologie der Tuberculose. *Berl. klin. Wschnschr.* 19:221-230, 1882.
4. MacCullum, P., Tolhurst, J. C., Buckle, G., Sissons, H. A.: A new mycobacterial infection in man. *J. of Path. and Bacti.* 60:93-122, 1949.
5. Smithburn, K. C.: The colony morphology of tubercle bacilli. *J. of Exp. Med.* 63:95-108, 1936.
6. Tarshis, M. S.: Some useful procedures for group differentiation of M. tuberculosis, unclassified mycobacteria, and saphrophytic acid-fast bacilli. *Tuberculology* 19:63-67, 1961.
7. Vera, H. D., Rettger, L. F.: Morphological variation of the tubercle bacillus and certain recently isolated soil acid fasts, with emphasis on filtrability. *J. of Bacti.* 39:659-688, 1940. ◄

Path-finder
PUBLISHED UNDER THE AUSPICES OF THE INDIANA ASSOCIATION OF PATHOLOGISTS



Thyroid Function Tests

LEON L. BLUM, M.D.
Terre Haute

THE ADVENT of diagnostic radioisotopes opened new approaches to the evaluation of thyroid function. An understanding of the fundamental facts of the iodine metabolism and thyroid physiology is essential for a proper interpretation of the thyroid function tests but it is beyond the scope of this outline. Many of the introduced tests are neither suitable nor necessary for clinical use. The tests of proven clinical value can be divided into four main groups:

Group I. *Tests based on measurement of thyroid gland metabolism of iodine.*
1. Thyroidal uptake of radioiodine (1^{131}, 1^{132}, 1^{125})
2. Thyroidal clearance of plasma (1^{131}) (Bergson test)
3. Protein-bound iodine (P.B.I.)^{131} and conversion ratio.

Group II. *Tests based on measurement of the thyroid hormone-plasma protein complex.*
1. Protein-bound iodine (P.B.I.), chemical
2. Butanol-extractable iodine (B.E.I.)
3. Red cell uptake of Triiodothyronine-1^{131}.

Group III. *Tests based on exogenously induced alterations of pituitary-thyroid relationship.*
1. Thyroid Stimulating Hormone (T.S.H.) test
2. Triiodothyronine (T_3) inhibition test
3. P.B.I.-T.S.H. test.

Group IV. *Tests based on measurement of the effects of thyroid hormone on tissue metabolism.*
1. Basal Metabolic Rate, (B.M.R.)
2. Serum cholesterol.

Group I.

1. Thyroidal uptake of radioiodine.

This widely used test evaluates the trapping function of the thyroid. Time of uptake varies in various tests from 10 minutes after intravenous dose to 48 hours after oral dose. Quantitation of the uptake at but one time interval may not provide a true picture of the uptake. In thyrotoxicosis the uptake may be abnormal at six hours, but within normal range at 24 hours because of the rapid hormonal 1^{131} excretion. We prefer to measure the uptake at six and 24 hours and to include the measurement of urinary 1^{131} excretion. The latter is not properly a function test but a check on technic. The "total accountable iodine" (i.e. 24 hours uptake plus urinary excretion) should amount to 80-100% of the dose. The test is affected by numerous iodine containing substances and drugs in-

cluding radiographic contrast media, drugs of the thiourea and thiocyanate groups and miscellaneous chemicals. Most of these substances tend to lower the uptake. High values may be encountered in some nontoxic nodular goiters, Hashimoto's disease, familial goitrous cretins, and other iodine deficiency states and nephrotic states.

Normal values:

I^{131} six hour uptake	7-25%
I^{131} twenty-four uptake	15-45%
I^{131} twenty-four hour urinary excretion	36-75%

2. Thyroidal clearance of plasma I^{131} (Bergson).

This extremely brief test measures radioactivity in the neck over 30 minutes period following intravenous injection of sodium iodine^{131} as well as urinary excretion. The calculation of the thyroidal clearance is somewhat complicated and the test is unreliable if the patient is edematous due to distorted iodide space. This test is indicated only in selected cases.

Normal values: 0-26 ml/min.

3. P.B.I.^{131} and conversion ratio.

The conversion ratio is the ratio between P.B.I.^{131} and total serum I^{131}. The percentage of P.B.I.^{131} per liter measures the same biochemical phenomenon. Primarily this is a measure of thyroidal clearance of iodine^{131} from the blood and is a reliable procedure for the diagnosis of hyperthyroidism, but it is not reliable for the differentiation between euthyroidism and hypothyroidsim.

Normal values:

P.B.I.^{131}:	0.02-0.2%/liter
Conversion ratio:	10-40%

Group II.

1. Protein-bound iodine (P.B.I.).

This accurate and valuable test is unfortunately subject to many sources of technical errors and interference by numerous iodine containing compounds. The interference of some of these compounds may be of short duration while that of others may persist for years. The administration of mercurial diuretics may also interfere for several days. Screening tests are useful to detect such interferences or gross contamination and values over 25 micrograms almost always can be traced to such sources of error. Such interference should be suspected in cases of very high P.B.I. and low radioiodine uptake. Determination of the total iodine is a useful check. If total serum iodine exceeds P.B.I. by 4-6 micrograms/100 ml. the results should be interpreted with caution. Unexpected elevations of P.B.I. are encountered in conditions associated with increased specific thyroxine-binding proteins (TBP), such as hyperestogenism and pregnancy, congenital metabolic defects, etc., and do not indicate a hyperthyroid state.

Average periods of interference after ingestion of iodine containing compounds:

Inorganic iodine—2-3 days

Radiopaque dyes for urography, angiography—2-4 weeks

Radiopaque dyes for cholecystography —3-6 months

Radiopaque dyes for bronchography, myelography—6 months-5 years

Normal values: 3.5-8 micrograms/100 ml.

Increased in: Hyperthyroidism
Pregnancy (failure to increase within four months may indicate abnormal pregnancy)
Acute or subacute thyroiditis

Decreased in: Hypothyroidism
Myxedema and cretinism
Hashimoto's disease

2. Butanol-extractable iodine (B.E.I.).

This test is even more complicated and time consuming than P.B.I. and does not eliminate interference with organic iodine compounds. It is claimed that the test is more specific diagnostically than P.B.I. for patients who have taken inorganic iodine or who have inborn errors of synthesis of metabolically active iodine compounds. This test is not recommended as a routine procedure.

Normal values: 3.2-6.4 micrograms/100 ml.

3. Red cell uptake of Triiodothyronine I^{131} (T_3 red cell uptake test).

This test basically measures in vitro the binding power of the plasma proteins in

THYROID FUNCTION TESTS IN VARIOUS STATES

	CONDITION	I^{131} Uptoke 6 hrs.	I^{131} Uptoke 24 hrs.	P.B.I. ug/100 ml.	Conversion Rotio	T_3 Red Cell Uptoke	T_3 Inhibition Test	TSH Test	BMR
1.	Euthyroidism	7-25%	10-46%	3.5-8	10-40%	Moles 11-19% Femoles 11-17%	2nd uptoke less thon 50% of first		−15 to +15%
2.	Hyperthyroidism	33-90%	40-90%	> 8	40-90%	16-34%	no chonge		high
3.	Hypothyroidism, primory	1-7%	1-15%	0-3	<10%	5-11%		no response	low
4.	Hypothyroidism, secondory (pituitory)		10-20%	1-4	<10%	decreosed		increosed uptoke	low
5.	Adenomotous goiter non-toxic	normol		3.5-8	normol	normal			normol
6.	Hoshimoto's diseose	vorioble		vorioble	vorioble	vorioble			low
7.	Granulomotous thyroiditis (ocute, subocute)	depressed		normol	depressed	normol			low
8.	Iodine deficiency	elevoted or normol		depressed or normol	elevoted or normol	normol	decreosed I^{131} uptoke		normol or low
9.	Thyroid molignoncy	normal		normol	normol	normol			normol
10.	Pregnoncy	elevoted		elevoted	normol	decreosed			

L-triiodothyronine, one of the active thyroid hormones and not the metabolic activity of erythrocytes. In contrast to the radioiodine uptake and the P.B.I. tests, T_3 red cell uptake test is *not* invalidated by the digestion of iodine containing compounds and does *not* require the administration of radioactive compounds to the patient. With proper attention to technical details the test is considered by many the most accurate single test of thyroid function. Obviously, the test will be affected by conditions altering plasma proteins and the quantity of red cells. T_3 red cell uptake is consistently decreased during normal pregnancy due to demonstrated increase of specific plasma binding globulins in pregnancy. Failure of the uptake to decrease during pregnancy usually indicates an abnormal hormonal level and frequently results in miscarriage.

Normal values: Females: 11-17%
Males: 11-19%

Increased in:

Hyperthyroidism
Anticoagulant therapy
Nephrosis
Severe liver disease
Advanced metastatic malignancy
Severe pulmonary insufficiency with CO_2 retention
Paroxysmal atrial arrhythmias

Decreased in:

Hypothyroidism
Pregnancy
Estrogen administration
Propylthiouracil in hyperthyroidism
Iodine in hypothyroidism

Unaffected or little affected by:

Thyroid enlargement
Exogenous iodine
Anxiety
Congestive heart failure
Hypertension
Mercury administration
Other endocrinopathies

A modification of this test employing resins instead of red cells which can be performed on serum has been introduced.

It remains to be shown conclusively whether the new modification (T_3 resin uptake) offers technical or other advantages. Other tests measuring thyroxine-binding properties in serum are still too complex for routine clinical use.

Group III.

1. Thyroid-Stimulating Hormone (TSH) test.

The results of this test based on I^{131} allow patients to be divided into four groups:

1. Nonresponders after no initial uptake.
   Example: Classic myxedema.
2. Responders after no initial uptake.
   Examples: Poorly functioning anterior pituitary, euthyroidal patients maintained with thyroidal hormone.
3. Responders after initial uptake.
   Examples: Euthyroidal persons.
4. Nonresponders after initial uptake.
   Examples: "Low thyroid reserve," Hashimoto's disease and patients after subtotal thyroidectomy.

Contraindications for administration of TSH include coronary insufficiency or thrombosis and Addison's disease.

2. Triiodothyronine (T_3) Inhibition Test.

The results of this test based on a minimum of four days of treatment with T_3 allow the patients to be divided into two groups:

1. Responders whose second uptake is less than half of the first.
   Example: Euthyroidal persons.
2. Nonresponders whose second uptake is little if any less than the first.
   Example: Exophthalmic goiter, toxic adenomas.

A modification of this test based on suppression of the release rather than the uptake of I^{131} has been recently proposed and several practical advantages claimed.

3. PBI-TSH Test.

This test which measures PBI following the administration of thyroid stimulating hormone (TSH) is useful in the differentiation of primary hypothyroidism (PBI response depressed) from hypothyroidism of pituitary origin (PBI response normal). The PBI-TSH test is also helpful in the evaluation of patients with mild hypothyroidism or "low thyroid reserve" and differentiation of Hashimoto's disease from other non-toxic, adenomatous goiters.

Group IV.

1. Basal Metabolic Rate (BMR).

This time honored test measures oxygen consumption and calorie production and is affected by many non-thyroid conditions. Its usefulness has been greatly reduced by the newer tests, particularly PBI and T_3 red cell uptake. However, it still retains some value in following up patients under treatment with thyroid hormones or antithyroid drugs.

2. Serum Cholesterol.

The normal variations of cholesterol level and its influence by many non-thyroid factors are so great as to deprive the test of any great diagnostic significance. As a rule, serum cholesterol is increased in hypothyroidism but its decrease in hyperthyroidism is so variable as to render the test nearly valueless. The measurements of serum cholesterol level is not recommended for evaluation of thyroid function.

Summary:

A large variety of specific thyroid function tests using radioiodine (I^{131}, I^{132}, I^{125}) are available. They should be used with discrimination and thoroughly correlated with the clinical findings. Some apparent contradictions can usually be resolved by repetition, further observation and exclusion of error-producing exogenous factors. The in vitro red cell uptake of triiodoiodine (T_3 red cell test) appears to be a valuable routine procedure for evaluation of thyroid function and abnormal pregnancy. ◄

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Journal Subscription Price to be Raised

ACTION OF THE HOUSE of Delegates on March 11, upon recommendation of the Council, to increase the subscription price of *The Journal* from $3.00 to $8.00 for members was based on a change in financial structure of *The Journal* with which all members of the Association should be acquainted.

Our financial difficulties are new but not unique. Two years ago a decrease in advertising revenue which in almost all instances amounted to 30% has affected all medical publications. In the case of state journals and other journals of limited circulation, for reasons to be explained later, the lowering of revenue has been serious.

The considerable decrease in advertising occurred in the midst of a gradual and relentless and still continuing increase in printing costs.

In 1940 JISMA received $6,340 from dues at the rate of $2.00 from each full-dues-paying member. The printing bill that year was about $7,000. The two sums almost matched each other.

By 1947 the printing bill had come up to $21,000. That was the year that the subscription price went from $2.00 to $3.00.

In 1961 the dues contribution to *The Journal* was approximately $11,000. The printing bill was $66,000; the dues allocation paid about 15% of the printing bill instead of almost all of it as it had in 1940.

Since 1947 and until two years ago, we have been able in an expanding advertising market to raise the advertising rates as the printing costs increased and have managed *The Journal* on an even keel without increasing the $3.00 subscription price.

However, during the past two years, the income from advertising has been reduced sharply and the advertising market is shrinking. It is inadvisable to raise the rates, since this will decrease advertising and advertising income, rather than increasing it as it did when the market was expanding. For the time being, at least, we are at the point of diminishing returns. Increasing the rates will lower the income.

The inadvisability of increasing rates becomes even more apparent when one considers that, at present rate schedules, med-

ical journals of limited circulation, including most state journals, receive 3 to 4 times as much money per page per reader as do the large circulation national magazines. The reasons for this will be pointed out later.

Postal regulations for second class matter require that medical journals contain no more than 50% advertising pages, and consequently at least 50% text pages. The most economical manner to construct a journal in so far as the amount of advertising is concerned, and the manner in which most journals including our own are constructed, is to publish as many text pages as there are advertising pages. It is expensive in terms of advertising revenue to publish more than 50% text pages, and it is against regulations to publish less.

As the amount of advertising lessens, the size of *The Journal* lessens, the amount of advertising revenue decreases and the cost of printing also decreases. As a matter of fact while we are in an era of steadily mounting printing costs and a "soft" shrinking advertising market in which we dare not raise advertising rates, there will always be a gap between revenue and cost which must be met by revenue other than that from advertising.

Also, as a matter of fact, if we were to sell at present rates, an additional 100 pages of ads for each issue, we would still be short of revenue to pay the high production costs. This is the basic reason why an increase is necessary in the subscription rate. Our difficulty is not so much in less advertising as it is in our inability to raise rates as we have in the past to match mounting production costs.

One suggestion to bring *The Journal* into a balanced budget on present revenue has been to make *The Journal* smaller. Due to the 50% ratio of advertising to text the amount and revenue of advertising would thereby be smaller. The printing bill would also be smaller, but there would still be the difference to make up from other revenue.

The same rationale applies to a suggestion to publish *The Journal* on alternate months. This will halve the advertising revenue and halve the printing bill, but the two would still be out of balance as they are now. The Hawaii Medical Journal has always been published on a bi-monthly basis. Its subscription price recently was raised to $6.00. At this rate, ours should go to $12.00.

In 1961 our deficit was in the neighborhood of $12,000. This was mainly due to the increased cost of two issues, The Roster Issue and The Convention Issue, both of which are important issues—ones which we all need and use frequently. Our expected deficit for 1962, according to our budget, is $18,000. We hope that economies will make this much smaller.

The reason why the present situation is especially serious for small circulation journals, and the reason why large circulation journals can sell advertising space for 25% to 30% more per page per reader than smaller journals do is as follows:

Most of the production costs consist of setting the type, making the plates, and arranging them in the press. After the printing starts only the cost of the paper and ink and the time of the pressman is added to the large make-up cost. A few thousand copies is therefore relatively expensive. The printing of 150,000 copies adds so little to the basic cost that each one of the multitude of copies is produced cheaply. If our *Journal* had a circulation of 100,000, it could charge advertising rates for this large circulation and give the magazine away without any subscription cost.

Since ours is a small circulation journal, we must be content with our advertising revenue and make up the difference, at least, until the advertising market is "firm" and expansive. The only alternative would be to suspend publication and to publish only the official transactions of the association and minutes of the commission and committee meetings. However, this type of publication does not attract advertising, and without advertising the publication of transactions and minutes would probably cost the association as much as the proposed $8.00 subscription price for *The Journal.*

Other economies which are possible but not advisable are the use of cheaper paper and cheaper ink. Both these items if used in

an inferior form, would save but very little money. Obtaining a cheaper and inferior type of printing would save more money, but all these so-called economies are likely to discourage advertisers and damage the advertising revenue permanently.

We have in the past periodically requested bids from reliable printing companies. We have not found any advantageous difference in price up to now. We are continuing this process and at the present are obtaining bids for printing.

County Society Discusses King-Anderson Bill

THE CLINTON COUNTY MEDICAL SOCIETY recently sponsored, with the cooperation of many public-spirited citizens, a public meeting for the purpose of explaining to interested citizens the reasons behind the medical profession's opposition to the King-Anderson bill.

Each doctor mailed an announcement to all of his patients over the age of 65. In addition, the meeting was advertised on the radio and by a full-page ad in the newspaper. The ad was sponsored by 400 people whose names appeared in the advertisement.

Transportation was offered to anyone who needed it. The doctors' wives baked cookies and these were served with coffee at the close of the meeting. Publicity was given to the fact that there was to be no admission charge.

So far as the doctors were concerned the planning for the meeting was on a nonpartisan political basis. Two of the physicians who are Democrats and active politically were among the prominent arrangers and conductors of the get-together.

The main speaker was a layman who spent about 30 minutes in commending free enterprise, in outlining the needs of the aged, and the cost of the bill and in explaining what should be done to help those who need help.

The attendance was excellent. The audience was urged to write their convictions to their congressmen. A small folder and some mimeographed material was distributed to assist in letter writing and in formulating a rational presentation.

The meeting was a large success. Clinton County doctors report practically no adverse criticism. They recommend the plan to other county societies.

1962 AMA Annual Meeting

LEONARD W. LARSON, M.D.
President, The American Medical Association

EACH YEAR at this season it is customary for the president of the American Medical Association to extend an invitation to all American physicians to attend the AMA's annual meeting. Each year it is also expected of the president to state that "this year's meeting will be the best yet."

This year I have no hesitation in proclaiming that the 1962 Annual Meeting, June 24-28 at Chicago, will be an excellent scientific session that will offer much solid, comprehensive information that will be of great value to those of us in the practice of medicine.

Dr. Samuel P. Newman, chairman of the Council on Scientific Assembly, and his colleagues, together with the Council's new secretary, Dr. George R. Meneely, have done a splendid job in studying the entire field of medicine and determining in which areas there has been substantial progress worth reporting to the men in practice.

As usual, the program for the meeting is scheduled for publication May 19 in the

Journal of the AMA. You will be able to judge for yourself whether I am right in saying that the program for the 1962 meeting is the finest ever assembled for the benefit of the American medical practitioner.

Theme of the meeting will be "Medicine in the Atomic Age." This is a broad, generalized theme that covers everything in medicine. And that is just what the scientific program will do.

The 21 sections concentrating on the medical specialties are pooling their talents and resources to bring the top men in the nation to deliver papers in areas such as Nuclear Medicine, Mental Health, Tissue Transplantation, Inflammatory and Ulcerative Diseases of the Small Intestine, Inhalation Therapy, Clinical Cardiology and Anticoagulant Therapy, and Diagnostic Problems and Exfoliative Cytologic Methods.

And for those of you who swore "never again!" following the last Annual Meeting in Chicago in 1956, allow me to point out that the 1962 meeting will be in the swank new McCormick Place, completely air conditioned. The steamy heat and cramped quarters of the old Navy Pier are just an unpleasant memory.

See you in June in Chicago!

Editorial Notes . . .

The Junior Engineers' and Scientists' Summer Institute (JESSI) will be conducted at Depauw University this year in two sections, June 17-30 for girls and July 1-14 for boys. Last year's institute at Depauw had an enrollment of 165 and was an unqualified success. The institute is a familiarization course in engineering and scientific (including medical) careers. The program is a closely packed morning, afternoon and evening affair. Applications and further information may be obtained by writing Dr. Albert E. Reynolds, Associate Director, JESSI, Greencastle, Indiana.

Big Business and Getting Bigger—Health insurance organizations of the United States paid out an average of $17.3 million a day during 1961. This was an increase of $1.8 million per day over 1960. The yearly total adds up to $6.3 billion, $3.4 billion by insurance companies and $2.9 billion by Blue Cross-Blue Shield and independent plans, according to the Health Insurance Institute. The Institute estimates that 136 million persons are now protected by hospital insurance.

The mortality in chronic respiratory disease has doubled in the past ten years according to the Statistical Bulletin of the Metropolitan Life Insurance Company. Chronic bronchitis, chronic pneumonias, bronchiectasis and emphysema deaths have increased at a slightly different rate according to sex and race, but the differences are not marked. Reasons for the increase, according to the statisticians, are the aging population, the tendency for physicians today to place more importance on respiratory diseases when a patient dies with several related conditions, possible increase in air pollution, and the growing number of patients who survive acute pulmonary infections and live with a chronic type of residual disease.

The remarkable lowering of appendicitis mortality is reported in the Statistical Bulletin of the Metropolitan Life Insurance Company. In 1959 the death rate for appendicitis was 1.0 per 100,000 population, 60% below the rate for 1949 and 90% below that for 1939. When tabulated by age groups the greatest decrease is found to have occurred in the age brackets between one year and 55 years. Below one year the mortality rate has declined only 75% since 1939, and in the decades above the age of 55 the declines are less than 90%, but still very worthwhile. In a 12-month period in 1957 and 1958, approximately 417,000 persons in the U. S. were admitted to hospitals for appendicitis, and spent a total of 2,709,-

000 days. Ninety percent were treated surgically. The average hospital stay was 6.9 days for surgical cases and 4.1 days for medical treatment.

When a socializer tells you that the old people in this country are destitute and medically underprivileged tell him that those over 65 constitute nine percent of the population and that they receive eight percent of all personal income.

When a socializer tells you that 53% of all those over the age of 65 have annual cash incomes of less than $1,000, tell him that 59% of all those under the age of 65 have annual cash incomes of less than $1,000.

The opinion survey which was conducted recently for the American Academy of General Practice has upset some false beliefs. The survey found that three-fourths of Americans are well satisfied with the quality of available medical care. When asked to list complaints, 54% had none. Only 18% thought medical care was "too expensive." When asked "What do you think is the most important single thing your doctor gets out of being a physician?," only 19% said "financial gains," and over 63% said "satisfaction in curing or helping people." The interviewees said that they thought doctors deserved a good income because of the importance of their work. Most of those interviewed stressed the importance of the general practitioner. ◄

A Paradox of Free Enterprise

We in the pharmaceutical industry live a kind of double life, for we are beholden both to the Hippocratic principles and to the needs of growth and survival under our business system. Our mission is both to save lives and to foster successful business firms. We are healers and merchants. In order to find healing substances, we must manage efficient businesses. This is, in essence, the paradox of free enterprise. Only the successful business can make real contributions to the American welfare. Only a health business can afford the risks and costs involved in discovering new cures for killer diseases.—Austin Smith, M.D., President, Pharmaceutical Manufacturers Association, to PMA Eastern Regional Meeting.

The Woman's Auxiliary

REPORTS TO ISMA

"However minute a quantity the individual may be among the factors that make history, he IS a factor. Just as a drop of ink stains a glass of water, so the humblest of men, in the exercise of free will and choice, affects the course of history."

This quote from the existentialist philosopher Jaspers has in a way been our theme for this year. Medicine has been caught up in the fight over the centralization of government, and because of this the science of medicine has been thrown into the arena of politics. As members of the Auxiliary to the Indiana State Medical Association, we have become involved in this struggle. At first, we were afraid to fight, knowing that our reasons would be interpreted as selfish; but as time went on, many of us lost our fear. It became apparent to those outside the profession that we were acting as citizens and not just as doctors' wives. Many recognized that we were impelled to speak out for the patients' sake, and not just to save our husbands from the irritations of a regimented practice.



This, I believe, has been the triumph of our Auxiliary year. We have come a long way in showing that we are willing to stand on what we believe is right. We are, and will continue to be, an example to the rest of the country of what can be accomplished when women are prepared to exercise, in groups and as individuals, their obligations as citizens. Indiana's drop of ink has indeed stained the glass of water.

So many little things illustrate the depth of our involvement. I am thinking of the incident of a Congressman telephoning one of our members to assure her that he is against King-Anderson; he had reason to think his letter had not sufficiently convinced her. I am reminded, too, of the labor leader who came to the home of one of the doctors to talk for three

hours. He was bowled over by what this doctor's wife had written in a letter to the editor—namely, that under King-Anderson the patient would pay $90 *every* time he is hospitalized for nine days, while he could buy the same coverage under private insurance for only $90 a year, no matter how many times he were to be hospitalized. It is difficult to evaluate the importance of this man's being convinced that he has been backing a bad bill.

In spite of the preoccupation of the Auxiliary's leadership with legislative matters, I believe the members will learn at the House of Delegates of outstanding work in other fields. As examples, I cite the county that staged a successful Health Fair; the auxiliary that is surveying Health Career Scholarships in the entire state; the group that put on a unique Public Relations program for the community; and the auxiliary that is working closely with the Science Fairs to finance sending the winners to the Seattle World's Fair.

We shall have to wait until the final figures are in at the AMA Convention in Chicago in June before we know whether or not we have topped ourselves in AMEF and Bulletin. In these areas, as in all others, we shall do our best. This year of working with you—a year that has seemed quite short—has convinced me that Indiana's best is *very* good.

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Waiting Lists— Rationale or Rationalization

GORDON T. BROWN, M.D.*
Indianapolis

DURING THE PAST DECADE, outpatient clinics have become an accepted segment of the psychiatric community in Indiana. Their popularity and usefulness has resulted in increasing caseloads and concomitantly longer waiting lists. At various times, these waiting lists are condemned or condoned, rationalized, or justified as an unfortunate but necessary evil. Seldom, however, are they handled in a constructive, definitive manner. This paper describes one clinic's efforts to alleviate this problem and thereby to offer the community more realistic service.

Setting

The Child Guidance Clinic of Marion County, Indianapolis, Indiana, is a community clinic, which has been functioning for the past ten years. For several years, the staff has consisted of a psychiatrist, two psychologists and five psychiatric social workers. The Clinic serves as a graduate student placement for the Indiana University School of Social Work, has a psychology intern program, and serves as a rotation service for psychiatric and pediatric residents from the Indiana University Medical Center and Methodist Hospital. The Clinic performs the characteristic function of diagnostic and treatment services for emotionally disturbed children and their parents. The Clinic also offers consultative services to the Juvenile Court, Department of Public Welfare, Indianapolis Public Schools and several agencies providing services to children.

Problem

In 1956, the Clinic opened 250 new cases. There was a six month waiting list for diagnostic service, and after a case was accepted for treatment, there was a further waiting period of approximately nine months. This was considered inevitable and by some even a salutory device to test the motivation of the patients. This situation, however, contributed to dissatisfaction and impatience on the part of the patients and agencies served. It must be admitted that it also provoked guilt feelings on the part of the Clinic staff when required to tell acutely disturbed children and their parents, that they might anticipate beginning therapy in 12 to 18 months. Other clinics in the area similarly had waiting lists of 12 to 24 months so there were few other resources available.

Corrective Steps

Despite everyone's opinion that the Clinic staff was working hard and diligently, an informal study was undertaken to evaluate the efficiency of the Clinic's practices and procedures. It became the general impression that there were several areas lending themselves to greater streamlining without sacrificing the efficiency or quality of the service.

The observation was made that many families were coming to the Clinic on the basis of an unrealistic referral, or expecting a type of service not actually available. When this did not come to light until the first interview, it represented an unproductive use of a staff member's time, as well as a pointless expenditure of effort and time on the part of the family. In order to help

* Formerly Director, Child Guidance Clinic of Marion County, Inc.

correct this, leaflets were prepared, describing the Clinic, the types of services offered, the application and study procedure, and the fees. After the initial telephone inquiry taken by a psychiatric social worker, these are sent to the parents along with the application and a form to be completed by the child's physician. It is our impression that this has reduced the number of inappropriate applications for Clinic service.

Upon receipt of the completed application and medical form, a second leaflet is sent discussing in greater detail the nature of the appointments, what the family may expect the evaluation to involve, and a general discussion about what to tell the child regarding his Clinic sessions. On the back of this leaflet is a map to aid in reaching the Clinic.

Typical Procedure

The typical procedure is that one of the parents, usually the mother, comes alone for the first appointment with a psychiatric social worker. In this session, the basic necessary information is secured, the parents description of the presenting problems, the child's development and history, and some impressions of the mother's own emotional makeup and history, and the family dynamics. All of this information is expanded upon in subsequent sessions.

At the time of her second appointment, the mother brings the child for his psychiatric examination. On the basis of this examination, some direction may be given to the psychologist who tests the child during his next appointment. At this time, the child is usually accompanied by the father who is seen by the social worker. During the evaluation period, which may occupy two to three weeks, there is a free flow of informal communication among the staff members regarding any particular case. Whereas in the past, diagnostic evaluation was extended over many more sessions, it developed that the protracted evaluation differed little from that of the more abbreviated study and that the latter was much more practical in terms of time expended. In more involved and complex cases however, whatever time necessary may be scheduled.

Each week, staff diagnostic conferences are held at which time the completed studies are discussed with each discipline contributing its findings and impressions. Out of this conference emerges a diagnostic formulation and treatment or other disposition recommendations. Whereas in the past, the conferences tended to drag on with detailed recitation of information obtained, this was felt to be an expensive and less productive use of time. It was determined for the conservation of time and for the purpose of making the sessions more stimulating, that each discipline would be required to present the findings, impressions and recommendations in a more summarized form. This permits the consideration of more cases at a conference and also provides opportunity for provocative discussion of each case.

Full Staff Conference

Since the number of cases opened precluded the possibility of a staff conference for each one, all diagnostic cases are screened by the psychiatrist director and only the more complex, stimulating or educational cases are brought to full staff conference. This has greatly enriched and revived previously flagging interest in the diagnostic conferences. Those cases not warranting a full staff conference are staffed informally during open hours by the staff members involved.

To facilitate filing and finding material, the dictated reports of the three disciplines are typed on different colored paper, as are the conference notes, which are dictated by the psychiatrist. These conference notes summarize the presenting complaints, the history, the evaluation, and the recommendations and have proven of great value upon many occasions, as for example, a quick review when discussing a case with a referring physician or agency.

Following the diagnostic conference, both parents are given an appointment to come in for a joint conference to review their concerns and impressions, and discuss the Clinic's findings and recommendations. This provides an excellent opportunity for them to be briefly evaluated by the psychiatrist in confirmation of the social

worker's impressions, and also to secure an initial test of their accessibility to therapy if this is recommended.

Summary letters to referring physicians or agencies and the closing summaries are written by the psychiatric social worker and co-signed by the psychiatrist. When considered indicated and helpful, referring physicians or agency staff members are invited to attend the diagnostic conference.

Since previously, occasional cases became lost or side-tracked in the morass of details and never came to conference or conclusion, it was felt that some simple and efficient method of checking on the orderly progress of the cases was necessary. As a result of this each staff member was provided a sheet upon which he entered each case in which he was active, and in appropriate columns his participation in the case. Transferred to a master tally sheet by the chief psychiatric social worker, this provided, at a glance, a graphic picture of the progress of all cases. While initially resisted as an "idiot sheet," this has now found unanimous acceptance and is of great benefit in the orderly and prompt handling of case progress.

More Efficient Processing

The more efficient processing of diagnostic cases has appreciably reduced the time involved in each individual study, permitting an increase from the 250 new cases evaluated in 1956 to the 357 new cases evaluated in 1959. This represents an increase of 43% in the diagnostic services in a three year period, and referring physicians and agencies have benefitted from the more efficient service rendered.

Another area of major concern was our observation that a disproportionately high percentage of treatment cases had reached an unproductive plateau or were showing very little progress. Part of this was felt to be the result of a lack of clear definition of goals in particular cases and also a lack of definition of the treatment program by which these goals could hopefully be attained. Such a formulation has now become a requirement in the selection of each treatment case.

Further observation was made that many of the cases in our treatment load were those for whom therapy could be considered of very limited or questionable value. These involved character disorders with fixed and chronic pathology, cases with intractible reality situations precluding successful therapy, and many cases of very limited motivation on the part of the patients. As we reviewed these particular cases, it impressed us that the motivation for treatment had come primarily from the Clinic staff rather than more realistically from the patients. It seemed they had succeeded in making the Clinic staff sufficiently anxious to encourage, push, or "sell" treatment, while they themselves were not adequately motivated to make any productive change.

In retrospect, it was suspected that many of these cases had been offered treatment and continued in treatment because of guilt and resistance on the part of the staff to accept the fact that some patients realistically could not be helped within the limits of our operation.

Percentage of Success Improved

As a general rule, treatment is now offered those cases of primarily neurotic, borderline psychotic or mild character disorders, with whom the Clinic feels it can most successfully work. For a variety of reasons, some more nearly intractible patients with psychotic or characterological disorders are accepted for treatment, but to accept a disproportionate number of these cases prevents the Clinic from meeting its overall community responsibility. The percentage of success in our treatment cases has improved as a result of this and the average length of treatment time has been reduced.

All treatment cases are reviewed in supervisory sessions or staff treatment conferences at least every three months, and some much oftener. This permits a continuing evaluation of the course of therapy in all treatment cases and each case is returned to conference prior to termination.

The streamlining of Clinic operation has made it possible for patients to move directly from the diagnostic evaluation into therapy which is a distinct advantage over the previous nine months gap.

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several other agencies in the community, it has been possible through guidance and supervision to offer a more therapeutic living situation to some of the children than otherwise possible. Lacking adequate residential treatment facilities in this area, some of these agencies have been extensively used to provide a therapeutically oriented living situation for particular children, including several psychotic children, while they are being treated intensively at the Clinic. The needs of some of the agencies referring children to the Clinic for evaluation and disposition recommendation services, led us to offer them a "package" diagnostic service, in which they are provided a half-day block of time each week for diagnostic evaluation of their cases. In this procedure, they provide the Clinic a complete written summary of their material. The parents or foster parents are seen between 9 and 11 o'clock by a psychiatric social worker, during which time the child is examined by the psychiatrist and psychologist. A conference is held from 11:00 to 12:00 o'clock with the staff members and agency representatives involved in the case. The material is then dictated and a summary sent promptly to the agency. In a majority of cases, this meets the requested need and in those cases where more prolonged study or treatment is indicated, it is provided.

The above routines, practices, policies and procedures including the various forms have been gathered in a master procedure book, which is available for review by new students and staff members, and is valuable in their orientation to the Clinic operation.

Results

The streamlining of Clinic services by these methods has enabled the Clinic in three years to increase its diagnostic services by 43%, increase its collateral services of consultation and community education, and almost double the treatment load. The Clinic has been operating without a waiting list for the past two years. It is our impression that it now more realistically fulfills its responsibility in meeting the community needs for child guidance clinic services without diminishing the quality of service. ◄

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The Role of Health Information Foundation

GEORGE BUGBEE
New York, New York*

THE YEARS IMMEDIATELY following World War II brought great national concern over how the American economy would adjust to the changes that came with peace. By 1949 the transition was reasonably assured, but the administration then in Washington nevertheless recommended an expansion of government participation in the field of medical care. The possibility of such expansion led directly to the organization of Health Information Foundation in 1949 and 1950 by a group of industrial leaders who believed that our voluntary system of medical care is one of our greatest assets.

The primary purposes of the Foundation are well established and well known. Its sponsors believe that in the development of health services—in deciding what is best in the long run for the nation's health—the public will act wisely if it is well informed. The Foundation assists by reporting progress in medical science and its value to the public, and by supporting research to identify problems and solutions potentially helpful to the nation's voluntary health agencies in coordinating activities and making them increasingly effective in serving the public.

In its 12 years of research and education, the Foundation has received substantial financial support from all segments of the pharmaceutical industry. Last year more than 150 companies—manufacturers, wholesalers and retailers—contributed, and support has been remarkably stable.

Monthly Bulletin

The Foundation's early years were a tooling up period and an effort to develop effective programs within overall aims. Public education was vital, but how a relatively small agency might have impact on the public had to be demonstrated. Among the earliest and most important educational efforts was the Foundation's bulletin, *Progress in Health Services*, a publication that has been mailed monthly to almost 60,000 opinion leaders countrywide. The mailing list includes all metropolitan newspapers, many weeklies, professional journals, science writers, and reporters and commentators for radio and television. A summarizing press release is enclosed to facilitate use of the data. News clippings from the past six months show that several thousand news stories and editorials resulted from the bulletin during that period.

Progress in Health Services as its name indicates, documents increases in life expectancy, advances in the treatment of major diseases such as mental illness, cancer, infantile paralysis, and in coping with accidents. For example, a recent issue described the one-third increase in working life expectancy for men achieved since 1900, and points out the implications for the nation. This increase in working life expectancy is, of course, a result of more effective medical care, particularly in controlling infectious diseases during the early and middle years of life.

Progress in Health Services is distributed as a service, without charge. It is sent to leaders in the health professions, schools, libraries and legislators, as well as to the media already mentioned. In fact, it is sent to all who are concerned with planning the future of health services and are responsible for communicating with the public.

Social and Economic Studies

But equally consequential in informing the public has been the development of more explicit information about how the public pays for medical care, the overall costs of services, the degree to which volun-

* President, Health Information Foundation.

tary health insurance is helping people to pay for care, and the use, cost, and organization of medical services of all types. Such social and economic research is receiving added emphasis in every aspect of American life, through business and government, and is vital in evaluating present performance and charting the future. It is used as a tool in planning the national economy and as a background for almost all policy decisions affecting the national welfare. In spite of this surge of interest in social and economic research, however, productive and useful data are not easily come by.

Currently a major portion of the resources of the Foundation is earmarked for the support of two projects, both relating to the cost of hospital care. Such cost has increased between 300 and 400% in recent years, or by far more than any other component of medical care. Because the service rendered in hospitals and the demand for hospital care have greatly increased, public criticism has focused on hospital use and price, frequently generating criticism of physicians and others in the health field.

A Foundation study of hospital use in Massachusetts is nearing completion. A sample of all discharges in that state has been studied with interviews of each patient and the physician or physicians who treated the patient in the hospital. This study should yield much new data on hospital use and be helpful in showing the degree to which present use is justified. Few facts are presently available, and there is some justification for assuming that increased use of hospitals is not the result of abuse but of the changing value of medical care, the aging of the population, and changing public attitudes toward necessary care.

The second major project largely financed through the 1961 budget is a study of costs in hospitals over time being conducted by the University of Michigan. It should do much to explain the factors that have led to the increase in hospital costs. Much of the increase, it seems safe to say, is inevitable, and while greater economy needs to be encouraged it will not significantly affect further cost increases. This makes such a descriptive study important for public understanding of hospitals today.

Research Grants

Through 1961 the Foundation will have made 48 research grants to 21 agencies, and some few studies have been conducted solely by the staff. The Foundation has probably made its most significant contribution through detailed information—carefully analyzed in terms of demographic data—of how people use medical care; for example, not only how many visits are made to physicians, the number of admissions to hospitals, the number of days of care, and the extent of surgery and so on, but in addition, facts have been developed on unit costs for services, expenditures by individuals and families, voluntary health insurance coverage, and the proportion of the medical care bill paid by such insurance. Nationwide family surveys of medical care were conducted in 1953 and 1958.

Through the generous support of the pharmaceutical industry, many Foundation publications have been distributed on request. During 1960 the Foundation had more than 17,000 requests for publications and distributed more than 50,000 individual items in addition to the monthly bulletin. For example, 1,124 information kits were supplied last year to college students debating compulsory health insurance. In addition, we were called on to help with questions from such known sources as *Life*, *Time*, the Associated Press, the Scripps Howard Syndicate, United Press International, and many other organizations and individuals in and out of the health field writing and publishing on health matters.

The Foundation's research is useful only as it reaches those who can learn from the findings. Therefore we take some pride in the effectiveness with which the Foundation distributes its material. From an unknown agency which at first was received with some skepticism, the Foundation is now accepted as a reliable source. Effective distribution of findings has led to broad use of data, as is repeatedly demonstrated not only in such broad circulation media as I have mentioned, but particularly in much

scientific literature relating to social and economic developments in medical care.

Industry Policies

Leaders in the pharmaceutical industry, I believe, should be particularly complimented on the policies they first established for the guidance of the Foundation and the integrity which they have shown in maintaining these policies. They have insisted on the broad distribution of data factually presented and unbiased, and they are convinced that it is through objectivity that the Foundation can be of true public service. This policy has brought wide acceptance of material distributed by the Foundation; it deserves recognition in the health field as a contribution by the pharmaceutical industry. The attitude of the industry was well expressed by the Chairman of the Board of the Pharmaceutical Manufacturers Association, when he said at their annual convention last year:

"Again, in looking outward as an industry, we should have the foresight to support long-range projects which give promise of advancing medicine and health. The Health Information Foundation is a prime example of a forward-looking service of this kind. Health Information Foundation deserves continuing strong support by all of us." ◄

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Report on Actions of the House of Delegates American Medical Association

15th Clinical Meeting

November 26-30, 1961

Denver, Colo.

DENVER, NOV. 30—Social Security health care, relations with the American College of Surgeons, organization of the American Medical Political Action Committee, medical discipline and polio vaccine were among the major subjects acted upon by the House of Delegates at the AMA's 15th Clinical Meeting held Nov. 26-30 in Denver.

Sounding the keynote for the Association's campaign to oppose enactment of the King-Anderson type of legislation in 1962, Dr. Leonard W. Larson of Bismarck, N. D., AMA president, told the opening session of the House that proposals to incorporate health care benefits into the Social Security system "would certainly represent the first major, irreversible step toward the complete socialization of medical care."

The compelling issue, Dr. Larson declared, is socialization versus voluntarism —or compulsion versus freedom of choice. He predicted that courage, determination and the will to win on the part of physicians will bring the defeat of the King-Anderson bill in Congress next year.

Pointing out that "we are engaged in an historic struggle to preserve our country's unique system of medical care and our stature as a profession," Dr. Larson said:

"We are *for* voluntarism. We do not believe that Americans, acting either as citizens or as patients, require central direction from government in their choice of doctor or hospital, in the spending of their health care dollars, or in their selection of the health services and facilities best suited to their own individual needs.

"We take our stand for voluntary cooperation, for preservation of the historic federal-state organizational structure, for individual responsibility, for help for those persons who *need* help."

Dr. Larson emphasized that the AMA will continue to give primary attention to implementing the Kerr-Mills Act in the states, promoting voluntary health insurance and prepayment plans designed for the aged, and upgrading nursing homes.

The House of Delegates gave enthusiastic approval to Dr. Larson's address and took several actions reaffirming strong support for the Kerr-Mills program to aid the needy and near-needy aged, and urging a concerted, determined fight against Social Security health care proposals in Congress.

The House advised all state and county medical societies to recognize the impending threat and to prepare now for any eventuality by continuing to oppose any scheme which tries to impose a substandard system of medical care on the American people.

"United, as well as individual effort is essential," the House declared. "To stop short of our total effort is to invite disaster and to let loose upon our beloved America irreversible forces which will ultimately destroy her. We cannot and we must not fail."

American College of Surgeons

The House agreed with the intent of five resolutions which expressed strong dissatisfaction over recent statements by a spokesman for the American College of Surgeons, and it also approved a Board of Trustees report informing the House that arrangements have been made for a January meeting with the ACS Board of Regents to discuss that organization's recent statements and policy positions. The report expressed hope that the meeting "will lead to a uni-

fication of effort in behalf of American medicine."

The House instructed the Board of Trustees to take the five resolutions to the January meeting and to report to the delegates as soon as possible on the results of the meeting. In taking the action, the House approved a reference committee report which said:

"Your reference committee believes the public airing of disagreements between large segments of medicine can only confuse and shake the confidence of the public in the medical profession and distort the true image of medicine which the American people should have.

"However, in its hearings upon the several resolutions relating to the recent statements of the American College of Surgeons, all those who testified were in opposition to the actions and statements of the ACS. The majority of those who spoke were Fellows of the American College of Surgeons.

"Your reference committee has no wish to fan the flames of controversy ignited by the statements of the American College of Surgeons. On the other hand, the committee feels the House has an obligation to its membership—which includes physicians in all types of practice—to agree with the indignation manifested by the introduction of these resolutions and in the discussions before the committee.

"This is all the more important because the position of the American College of Surgeons is based on an incorrect interpretation of the action of this House which in no sense is a retreat from its position of firm opposition to fee splitting."

American Medical Political Action Committee

The House heartily approved the purposes and goals of the recently-organized American Medical Political Action Committee and urged all physicians, their wives and interested friends to join AMPAC and other political action committees in their states and communities.

"Effective political action must be carried on at the local level and effective implementation must be done by local groups of physicians," the House said. "The formation of AMPAC recognizes the need for a national medical political action committee to coordinate the political activities of physician groups at all levels throughout the country."

The purposes of AMPAC, which is an organization separate and distinct from the American Medical Association as required by federal law, are:

1. To promote and strive for the improvement of government by encouraging and stimulating physicians and others to take a more active and effective part in governmental affairs.

2. To encourage physicians and others to understand the nature and actions of their government as to important political issues and as to the records and positions of political parties, officeholders and candidates for elective office.

3. To assist physicians and others in organizing themselves for more effective political action and for carrying out their civic responsibilities.

4. To do any and all things necessary or desirable for the attainment of the purposes stated above.

Medical Discipline

The House received from the Council on Constitution and Bylaws, a proposed amendment which would have made it possible to implement a recommendation by the Medical Disciplinary Committee that was approved by the House at the June, 1961, meeting. This recommendation was to change the bylaws so as to confer original jurisdiction on the Association to suspend and/or revoke the AMA membership of a physician found guilty of violating the Principles of Medical Ethics or the ethical policies of the Association, regardless of whether or not action has been taken against him at the local level. However, after considerable discussion on the floor of the House, the proposed amendment was referred back to the Council on Constitution and Bylaws.

In another action on medical discipline the House approved the expanded activities of the Judicial Council, which has taken

over permanent responsibility in that area, and said that the Council program should benefit all physicians, the public and the profession.

Polio Vaccine

The House adopted a resolution which urged that medical societies at the local, county, district or state levels throughout the United States should encourage, stimulate and participate in surveys to determine the percentage of individuals in each community who have undergone immunizing procedures for poliomyelitis.

The resolution stated that on the basis of the results of the surveys, the local medical society should determine the type of vaccine and the most effective type of program which will be of greatest benefit to the public.

Until such time as all three types of oral vaccine are available, the resolution concluded, the Salk vaccine should be the vaccine of choice for routine poliomyelitis immunization, with the choice of program for administering the vaccine to be determined on a local basis by each county medical society.

Miscellaneous Actions

In considering a wide variety of resolutions and annual and supplementary reports, the House also:

Disapproved of two proposals which would have required that *resolutions* be introduced 30 and 45 days, respectively, before Association meetings.

Approved a statement that physicians have an *ethical obligation* to participate in medical society activities and express their opinions fully and freely.

Reaffirmed AMA policy that it is not considered unethical for a physician to own or operate a *pharmacy* provided there is no exploitation of the patient.

Agreed with the Judicial Council that the physician himself is responsible for the control and custody of *drug samples* once they come into his possession, and in the high tradition of the medical profession he should not dispose of them in any way that could cause harm to others.

Commended those constituent medical societies which have moved forward in the area of *human relations* by eliminating membership restrictions based on race or color. In connection with the same subject, Dr. Peter Murray of New York City, retiring after 12 years of service in the House, told the delegates in a farewell address that Negro physicians now have some kind of medical society membership in every state except one.

Approved a recommendation that a special House committee be appointed to investigate all facets of the operation of the *Joint Commission on Accreditation of Hospitals.*

Agreed with the Board's choice of Miami Beach, Florida, as the site for the *1964 Clinical Meeting.*

Approved the combining of the American Medical Education Foundation and the *American Medical Research Foundation into the American Medical Association Education and Research Foundation,* effective next January 1.

Deferred action on a proposed study of *fund raising* by voluntary health agencies, pending the development of additional information by the AMA Committee on Voluntary Health Agencies.

Reaffirmed the previous policy that physicians should have the privilege of prescribing drugs by either *generic or brand name.*

Approved the principal of *income tax deductions* for medical care of the aged.

Recommended, in reviewing the *Medicare Program,* that all county medical societies in the area surrounding armed forces hospitals make a serious attempt to establish formal liaison with the physicians on those hospital staffs.

Endorsed the administration of indigent medical care programs developed in cooperation with local medical organizations as a legitimate activity *of state and local health departments.*

Urged the elimination of all "categories" in programs of *assistance to the needy* at the federal and state level, with all assistance provided through a single program.

Referred to the Council on Medical Service a resolution proposing the use of state and federal tax funds to provide voluntary

prepayment health insurance protection for the aged. In a related action the House approved of experimentation with *prepayment plans* under assistance programs.

Urged more vigorous promotion of voluntary non-profit prepayment health plans.

Urged every physician in the United States to use automobile *seat belts.*

Recommended, as a civil defense measure, a *mass immunization* program for the general public.

Suggested that the Board of Trustees continue its negotiations to develop a group *disability insurance* program for AMA members.

Concurred in the Board's appointment of a special committee to study the organizational status of *AMA Sections,* the functions of the Scientific Assembly and existing procedures for establishing medical certifying boards.

Instructed the Council on Medical Education and Hospitals to study the present and potential contribution of the *American Board of Abdominal Surgery* to the advancement of the art and science of surgery and the betterment of public health, to determine whether it should be approved as a recognized examining board.

Approved and commended the objectives and program submitted by the Committee for Liaison with *National Nursing Organizations.*

Recommended that the Secretary of Defense consider the advisability of developing a training program for *reserve medical* officers.

Awards and Donations

The AMA Board of Trustees presented a special citation to the producers and cast of The Donna Reed Show for its "contribution to public understanding of the high ideals of the medical profession." Carl Betz, who portrays Dr. Alex Stone on the television show, received the award from Dr. Hugh H. Hussey Jr., AMA Board chairman, at the Wednesday Session of the House.

Contributions totaling $435,275.93 from physicians in six states were presented to the American Medical Education Foundation during the opening session on Monday.

Registration

Final registration at the meeting reached a total of 6,138, including 2,976 physicians.

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When pHisoHex was used for washing by 42 patients with acne, "the results were uniformly encouraging. . . ."[1] "No patient failed to improve."[1]

pHisoHex cleans the skin of acne patients better than soap because it is forty per cent more surface active. It is a powerful emulsifier of oil, an action particularly beneficial in acne. Moreover, it cleans the orifices of the sebaceous glands, sweat glands and hair follicles more rapidly and more thoroughly than soap. pHisoHex lacks the potentially harmful qualities of soap. It is nonalkaline, nonirritating and hypoallergenic.[2]

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pHisoAc® Cream dries, peels and masks lesions. Use it with pHisoHex washings to help prevent comedones, pustules and scarring. Contains colloidal sulfur 6 per cent, resorcinol 1.5 per cent and hexachlorophene 0.3 per cent.

pHisoHex is available in unbreakable squeeze bottles of 5 oz. and 1 pint—and in combination package with pHisoAc Cream.

1. Hodges, F. T.: *GP* 14:86, Nov., 1956.
2. Guild, B. T.: *Arch. Dermat.* 51:391, June, 1945.

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DEDICATION OF EMERSON HALL

A fitting tribute will be paid on Alumni Day, May 9, at Indiana University School of Medicine when the newly remodeled Medical School Building will be named Emerson Hall in honor of the late Dr. Charles P. Emerson who served as Dean from 1911 to 1931.

Dr. Emerson came to Indianapolis in 1911 to accept the deanship. A graduate of Amherst College and of Johns Hopkins University Medical School, he already possessed a great reputation as a specialist in Internal Medicine.



During the 20 years that Dr. Emerson served as Dean, great changes, both educational and physical, were to take place. The University Medical Center became a reality with the building of Robert W. Long Hospital, James Whitcomb Riley Hospital for Children, William H. Coleman Hospital for Women and the Ball Residence for Nurses. The reputation of the School of Medicine found nationwide recognition under Dean Emerson's leadership, a reputation well-founded and one that has continued to grow and spread even further afield year by year.



The perpetuation of the name of Charles P. Emerson, M.D., can be made in no finer way than by the naming of the School of Medicine after this great Dean; he was an inspiration to all the many students under his tutelage and this inspiration will now be kept vital by all the students of the future as they commence to learn their great and chosen profession in Emerson Hall.

as each patient may require

—**for dramatic promptness:** ROBAXIN INJECTABLE usually provides relaxation of painful spasm *in minutes*. Clinicians have reported that it is "effective in producing immediate relaxation,"[7] and brings about "dramatic relief of pain and spasm" within 15 to 20 minutes.[3]

In each 10-cc ampul Methocarbamol (Robins) 1.0 Gm.

—**for prolonged use with safety:** ROBAXIN TABLETS safely maintain relief of spasm *without drowsiness*. "The effect does not wax and wane,"[4] and continued administration shows "no deleterious effect on normal muscle tone."[6]

In each white, scored tablet Methocarbamol (Robins) 0.5 Gm.

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—**for concurrent analgesia:** ROBAXISAL TABLETS, combining ROBAXIN with aspirin, are useful in spasm-triggering states that are painful in themselves, or when pain is prominently associated with muscle spasm.

In each pink-and-white laminated tablet Methocarbamol (Robins) 400 mg.
Acetylsalicylic acid (5 gr.) 325 mg.

—**for concurrent analgesia plus sedation:** ROBAXISAL-PH TABLETS, combining ROBAXIN with the sedative-reinforced analgesic PHENAPHEN®, are particularly helpful in giving comprehensive relief to patients in whom muscle spasm is accompanied by spasm-potentiating pain and apprehension.

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Methocarbamol (Robins)	400 mg.	Acetylsalicylic acid (1¼ gr.)	81 mg.
Phenacetin	97 mg.	Hyoscyamine sulfate	0.016 mg.
		Phenobarbital (⅛ gr.)	8.1 mg.

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References: 1. Carpenter, E. B.: South. M. J. 51:627, 1958. 2. Hudgins, A. P.: Clin. Med. 8:243, 1961. 3. Lamphier, T. A.: J. Abdomin. Surg. 3:55, 1961. 4. Levine, I. M.: Med. Clin. N. America 45:1017, 1961. 5. Meyers, G. B., and Urbach, J. R.: Penna. M. J. 64:876, 1961. 6. Perchuk, E., Weinreb, M., and Aksu, A.: Angiology 12:102, 1961. 7. Poppen, J. L., and Flanagan, M. E.: J.A.M.A. 171:298, 1959. 8. Schaubel, H. J.: Orthopedics 1:274, 1959. 9. Steigmann, F.: Am. J. Nursing 61:49, 1961.

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"...superior to other relaxants..."[9]

"...remarkably effective..."[2]

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Beginning this month, *The Journal* will start a new monthly feature called "Listen and Learn."

Each month, we will list tape recordings available on loan to any physician.

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"Seriously, I have found in the main that your tapes are excellent and certainly educational. You may think that I am some kind of a nut, but after six years of a general practice with little extra time for study, one can really develop a thirst for knowledge. You can be assured that any effort on your part is invaluable to me and appreciated.

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PUBLIC RELATIONS AND NON-SCIENTIFIC

NS-357 **MEDICAL POLITICS ON A NATIONWIDE BASIS**—Rufus B. Robins, M.D. Recorded: 1960 Indiana State Medical Association Annual Meeting, French Lick, Indiana. Date: October 4, 1960. Time: 40 Minutes.

CARDIOVASCULAR

CV-540 **RECENT ADVANCES IN CARDIOVASCULAR SURGERY**—Harold King, M.D., Assistant Professor of Surgery, Indiana University Medical Center. Recorded: 11th District Meeting. Date: May 18, 1960.

CANCER

CA-675 **HYPOPHYSECTOMY IN THE TREATMENT OF ADVANCED CANCER OF THE BREAST**—Bronson S. Ray, M.D., New York. Recorded: Indiana State Medical Association Annual Meeting. Date: October 7, 1959.

CA-676 **COBALT-60 TELETHERAPY OF MAMMARY CARCINOMA**—James C. Katterjohn, M.D., Indianapolis, Indiana. Recorded: 110th Annual Convention of the Indiana State Medical Association.

CA-677 **POSTOPERATIVE X-RAY RADIATION FOR CANCER OF THE BREAST**—John W. Beeler, M.D., Indianapolis, Indiana. Recorded: 110th Annual Convention of the Indiana State Medical Association. Date: October 7, 1959.

CA-678 **CANCER OF THE BREAST**—George Crile, Jr., M.D., Cleveland, Ohio. Recorded: 110th Annual Convention of the Indiana State Medical Association. Date: October 7, 1959.

CA-679 **CARCINOMA OF THE LOWER COLON AND UPPER RECTUM**—Charles W. Mayo, M.D., Rochester, Minn. Recorded: October 8, 1960 at the Indiana State Medical Association Annual Meeting.

GENERAL

G-1146 **PROBLEMS OF OVARIAN CYSTS**—J. Donald Woodruff, M.D., Recorded: Indiana State Medical Association Annual Meeting. Date: October 7, 1959.

G-1147 **HYPERFUNCTIONING LESIONS OF THE ADRENAL GLANDS**—James T. Priestley, M.D., Rochester, Minn. Recorded: Indiana State Medical Association Annual Meeting. Date: October 7, 1959.

G-1148 **SURGICAL ANATOMY OF THE COLON AND RECTUM**—Mr. C. Naunton Morgan, London, England. Recorded: Indiana State Medical Association Annual Meeting. Date: October 7, 1959.

G-1149 **PITUITARY TUMORS**—Bronson S. Ray, M.D., New York. Recorded: Indiana State Medical Association Annual Meeting. Date: October 7, 1959.

G-1150 **ULCERATIVE COLITIS**—Chares W. Mayo, M.D., Rochester, Minn. Recorded: Indiana State Medical Association Annual Meeting. Date: October 8, 1959.

G-1151 **THE TIRED MOTHER SYNDROME**—Leonard L. Lovshin, M.D., New York. Recorded: Indiana State Medical Association Annual Meeting. Date: October 7, 1959.

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ABSTRACTS

BOOK REVIEWS

"THE NATURE OF SLEEP"

Ciba Foundation Symposium edited by G. E. W. Wostenholme & Maeve O'Connor—1960. $10.00. 416 pages and numerous figures.

Almost three dozen authorities have participated in writing the score of chapters comprising this very excellent colloquium on a topic on which the last word is a long ways from having been said. Be the reader a doctor, his wife, a natural historian, physiologist or just an inquiring individual —there is material for the most varied of tastes. It is merely a matter of picking the parts that seem most interesting to the reader's taste at that particular moment.

Thus there is a delightful, almost non-technical, discussion by Dr. Nathaniel Kleitman on the nature of dreaming; I believe that any intelligent person would derive much pleasure from a perusal of this summary of so much of this author's pioneering work. There are also highly advanced surveys on the meaning of electroencephalographic patterns under certain specific conditions; a high degree of knowledgability on the part of the listener is taken for granted.

The printing on excellent paper is very legible; the binding is good; typographical errors are few, indeed. This is just the kind of book I would recommend for the physician to have at his bedside for relaxed reading before retiring. It is not a trail blazing monograph; it *does* have many answers to questions being posed by thoughtful people, be they physicians or just thoughtful lay folk.

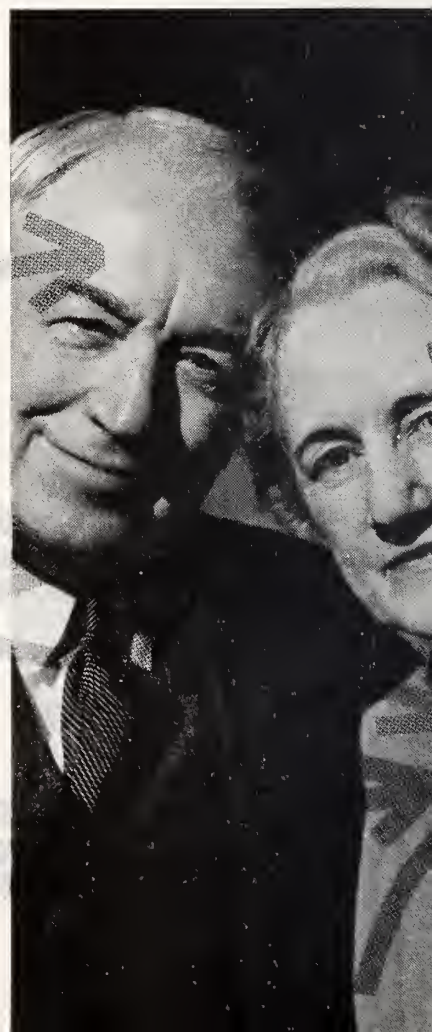
Arnold Lieberman, M.D.
New York, N. Y.

Abstracts From Various Literature, Prepared by AMA

THYROID CANCER IN CHILDREN

To study thyroid carcinoma in children less than 15 years of age, the world literature was reviewed and questionnaires were sent to more than 600 hospitals in the United States and Canada. The fact that approximately 80% of 602 patients lived in the United States does not represent the true geographic distribution of the disease, because a more diligent search was made in this country. Eighty percent of 286 patients, who were asked about previous radiation stated that they had received irradiation to the head or neck. Clinical details were available in 486 patients. The chief complaint was one or more painless nodules in the neck. No doubt sharper diagnostic acuity

arlidin
increases blood flow to the brain in the "senility syndrome" associated with cerebrovascular insufficiency



accounts for part of the increase in thyroid cancer in children, but radiation of the thyroid during infancy and childhood seems a more significant factor. It has not yet been proved that total thyroidectomy and radical neck dissection produce better results than various less radical procedures. Radiation is said to be of no value; yet 66% of the patients living more than 10 years received radiation and 15 of them were treated solely by this method. Since pulmonary metastases disappeared after the use of radioactive iodine in 20 patients, it would seem advisable to try this method in patients with such metastases. Beneficial results and decrease in size of metastatic nodules have been reported after continued use of desiccated thyroid in large doses. While the authors obtained encouraging results with such treatment in 8 instances, other patients showed either no change or continued growth of tumor and additional metastases. The group of long-term survivors included 12 women with known residual carcinoma who have borne children. Pregnancy or lactation did not activate the tumor.

Winship, T. Rosvoll, R. V.: Study of Thyroid Cancer in Children, *Amer. J. Surg.* 102:747 Dec. 1961.

ASPIRIN AND GASTRIC BLEEDING: CALCIUM ASPIRIN

In an attempt to assess the advantages of soluble calcium aspirin modifications as compared with those of standard aspirin tablets, the authors studied 137 postgastrectomy specimens from patients who had been given 2 tablets of standard aspirin (0.6 gm.) or 2 tablets of soluble calcium aspirin (Calurin) in equivalent dosage 2 hours before an elective partial gastrectomy for duodenal ulcer. The aspirin preparations, given in 100 cc. of water, were identical in appearance; they were coded, and their nature was unknown to the authors. When the code was broken, it was found that 62 patients had been given the standard tablet and 75 the soluble form. In a postgastrectomy series previously published by the authors, 40 patients had been given standard aspirin tablets and 20 had received the soluble form. No significant signs of gastric irritation were observed in the gastrectomy specimens obtained from the 95 patients who received calcium aspirin; serious gastric lesions were found in the gastrectomy specimens obtained from 8 of the 102 patients who had received standard aspirin tablets. Standard caffeine citrate test meals in which 2 tablets of standard aspirin or soluble calcium aspirin were given uncrushed with a little water, were administered to 60 patients with histories of gastrointestinal disorders immediately after the withdrawal of the fasting juice. The results of the test meals did not show a significant difference in the incidence of gastric bleeding. Fecal occult blood studies using Gregersen's method proved to be unreliable as a research weapon. Calcium aspirin produced significantly less gastric bleeding

Continued



Inadequate cerebral blood flow—often due to cerebral arteriosclerosis—may result in the "senility syndrome" with its pattern of mental confusion, memory lapses, depression, fatigue, apathy and behavior problems.[1-3]

43% increase in cerebral blood flow with Arlidin[4]

In patients with cerebrovascular insufficiency, Eisenberg[4] measured a 43 percent increase in blood flow in the brain following administration of Arlidin orally for more than two weeks beginning with a dosage of 12 mg. t.i.d. and increasing to 18 mg. t.i.d. There was a decrease in cerebral vascular resistance in most instances.

Winsor and associates[3] found Arlidin "of particular value **clinically** in relieving some of the symptoms of cerebral vascular insufficiency (vertigo, lightheadedness, mental confusion, diplopia)."

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references: 1. Madow, L.: Penn. M. J. 62:861, June 1959. 2. Stieglitz, E. J.: Geriatric Medicine, ed. 2, Philadelphia, Saunders, 1949 p. 274. 3. Winsor, T., et al.: Amer. J. Med. Sciences 239:594, May 1960. 4. Eisenberg, S.: ibid, July 1960.

NOTE—before prescribing ARLIDIN the physician should be thoroughly familiar with general directions for its use, indications, dosage, possible side effects and contraindications, etc. Write for complete detailed literature.

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Thiamine Mononitrate	10 mg.
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Pyridoxine Hydrochloride	5 mg.
Calcium Pantothenate	20 mg.
Vitamin B_{12}	5 mcg.

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"nutrition...present as a modifying or complicating factor in nearly every illness or disease state"[1]

1. Youmans, J. B.: Am. J. Med. 25:659 (Nov.) 1958

cardiac diseases "Who can say, for example, whether the patient chronically ill with myocardial failure may not have a poorer myocardium because of a moderate deficiency in the vitamin B-complex? Something is known of the relationship of vitamin C to the intercellular ground substance and repair of tissues. One may speculate upon the effects of a deficiency of this vitamin, short of scurvy, upon the tissues in chronic disease."[2] 2. Kampmeier, R. H.: Am. J. Med. 25:662 (Nov.) 1958.

arthritis "It is our practice to prescribe a multiple vitamin preparation to patients with rheumatoid arthritis simply to insure nutritional adequacy . . ."[3]
3. Fernandez-Herlihy, L: Lahey Clinic Bull. 11:12 (July-Sept.) 1958.

digestive diseases Symptoms attributable to B-vitamin deficiency are commonly observed in patients on peptic ulcer diets.[4] Daily administration of therapeutic vitamins to patients with hepatitis and cirrhosis is recommended by the National Research Council.[5] 4. Sebrell, W. H.: Am. J. Med. 25:673 (Nov.) 1958. 5. Pollack, H., and Halpern, S. L.: Therapeutic Nutrition. National Academy of Sciences and National Research Council, Washington, D. C., 1952, p. 57.

degenerative diseases "Studies by Wexberg, Jolliffe and others have indicated that many of the symptoms attributed in the past to senility or to cerebral arteriosclerosis seem to respond with remarkable speed to the administration of vitamins, particularly niacin and ascorbic acid. These facts indicate that the vitamin reserve of aging persons is lowered, even to the danger point, more than is the case in the average American adult."[6] 6. Overholser, W., and Fong, T.C.C. in Stieglitz, E. J.: Geriatric Medicine, 3rd edition, J. B. Lippincott, Philadelphia, 1954, p. 264.

infectious diseases Infections cause a lowering of ascorbic acid levels in the plasma; and the absorption of this vitamin is reduced in diarrheal states.[7] 7. Goldsmith, G. A.: Conference on Vitamin C. The New York Academy of Sciences, New York City, Oct. 7 and 8, 1960. Reported in: Medical Science 8:772 (Dec.10) 1960.

diabetes Diabetics, like all patients on restricted diets, require an extra source of vitamins.[8] "Rigidly limiting the bread intake of the diabetic patient automatically eliminates a large amount of thiamin from the diet. . . . There is some evidence of interference with normal riboflavin utilization during catabolic episodes."[9]
8. Duncan G. G.: Diseases of Metabolism 4th edition W. B. Saunders, Philadelphia, 1959, p. 812. 9. Pollack, H.: Am. J. Med. 25:708 (Nov.) 1958.

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than standard aspirin in 20 patients with no previous history of dyspepsia (calcium aspirin 5%, standard aspirin 65%). The authors believe that soluble aspirin preparations should be used in place of the insoluble standard varieties.

Muir, A., Cossar, I. A.: Aspirin and Gastric Bleeding: Further Studies of Calcium Aspirin, *Amer. J. Dig. Dis.* 6:1115 Dec. 1961.

ACUTE PERFORATED PEPTIC ULCER

The results of the emergency operative treatment of acute perforated peptic ulcer in 160 male patients, in a Veterans Administration Hospital, are presented. There were no deaths. The patients ranged in age from 21 to 78 years. The average time interval from acute perforation to surgical closure was 9 hours. Small transverse right supraumbilical incisions and silk suture closures were employed. Dehiscence and postoperative herniation did not occur. Neither the peritoneal cavity nor the wound were drained. There were only 3 wound infections (1.8%), and 1 pelvic abscess and 1 subhepatic abscess occurred. Early definitive elective gastric operation was recommended and performed in 60% of the patients to date. At this time there are an additional 16% who also need definitive operations. The authors believe that the simple surgical closure procedure is a life-saving emergency measure, that it should be performed early and quickly, that education of the public and members of the profession concerning the harmful effects of delay is mandatory, and that all patients and their families be told from the first that very probably 2 procedures requiring 2 separate operations will be necessary. Early planned "definitive gastric operation" in a high percentage of these patients will result in a marked decrease in disability, chronic invalidism, and the many later complications associated with a chronic ulcer diathesis.

Palumbo L. T., Sharpe, W. S.: Acute Perforated Peptic Ulcer; Evaluation of 160 consecutive Patients Treated by Closure, *Surgery* 50:863 Dec. 1961.

W. B. SAUNDERS COMPANY features the following recent books in their full page advertisement appearing elsewhere in this issue:

ADLER: *Textbook of Ophthalmology* concentrates on the ophthalmic problems of the non-specialist — stressing diagnosis, treatment and indications that call for a specialist.

MAJOR and DELP: *Physical Diagnosis* offers step-by-step procedures for examining every area of the body by inspection, palpation, percussion and auscultation.

REID: *Textbook of Obstetrics* gives you not only a clear picture of normal pregnancy and labor, but sound insight as well into the medical complications that may arise.

CANCER OF THE LUNG IN AN INDUSTRIAL POPULATION

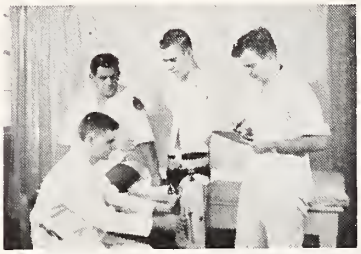
One hundred twenty-five new cases of cancer of the lung were reported among the 90,000 employees of the du Pont Company during 1956-1960. There was very little difference in incidence between male-wage and male-salaried employees. In no company plant or office installation was the incidence significantly greater than that in the company as a whole. The death rate from lung cancer among male employees was 77% of that in the United States population.

Pell, S., Fleming, A. J.: Cancer of the Lung in an Industrial Population, *Arch. Environ. Health* 4:135 Feb. 1962.

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Aspiration of lymph node tissue by needle is a simple, rapid, painless, and accurate diagnostic tool. Characteristic cytological pictures found in a series of upward of 500 aspirations are described and illustrated by high magnification photomicrographs. Aspiration usually takes less than 30 seconds to perform, no local anesthetic is necessary, and the node is left intact in case reaspiration from another area or conventional surgical biopsy is later desired.

Stich, M. H.: Lymph Node Aspiration, *Amer. J. Med. Sci.* 243.1 Jan. 1962. ◄



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Medicine At Law

DECISIONS AND OPINIONS

Highlights of recent court actions pertaining to health and medicine from *The Citation* prepared by the Law Division of AMA.

Optician Properly Enjoined from Fitting Contact Lenses.—An injunction restraining a dispensing optician from fitting or adjusting contact lenses into the eyes of any person was affirmed on appeal by the Oregon Supreme Court. The injunction also restrained the optician from measuring or examining eyes to determine whether contact lenses could be worn, advising persons whether they could wear contact lenses, or advertising that he would perform any of these services.

The enjoined practices are among those restricted to registered optometrists under the Oregon law. Opticians are not licensed in that state. The court said: "There was testimony from all of the professional witnesses called that even if the lenses felt comfortable to the person wearing them that harm to the eye could still result. It was not disputed that only professional skill and judgment could detect the harm or the likelihood of harm. There was evidence to show that such harm could be serious."

The record showed that many physicians and optometrists sent patients to the optician with a bare prescription as to visual correction to be put into the lenses, leaving it to the optician to measure the eye for contact lenses and to fit the lenses. Some gave prescriptions including eye measurements, and a few required that the patients return to them for fitting.

The court also upheld an exception in injunction which permitted the optician to measure the eyes of patients and to use his judgment to determine the appropriate size and curvature of contact lenses suitable for use by them, provided that he does so under the direct supervision of legally qualified personnel. It modified this provision, however, to provide that the supervision be "personal." It emphasized that this does not mean supervision by written or telephone communication.—*State ex rel. Reed v. Kuzirian,* 365 P. 2d 1046 (Ore., Nov. 1, 1961).

Hospital Liable for Delay in X-Ray Diagnosis.—A judgment of $5,000 was awarded against a hospital where a delay in reading an x-ray of a dislocated shoulder and a fractured arm resulted in partial paralysis of a patient's arm and hand. A directed verdict was entered in favor of the physicians who reduced the fracture.

The patient went to the hospital at 2:00 a.m. A resident took x-rays, but told the patient they were too wet to read and directed her to return the following morning. The evidence was held to be sufficient for submission of the case against the hospital to the jury.—*Jost v. Illinois Masonic Hospital,* Circuit Court of Cook County, Illinois, Docket No. 60C-5919, Dec. 18, 1961.

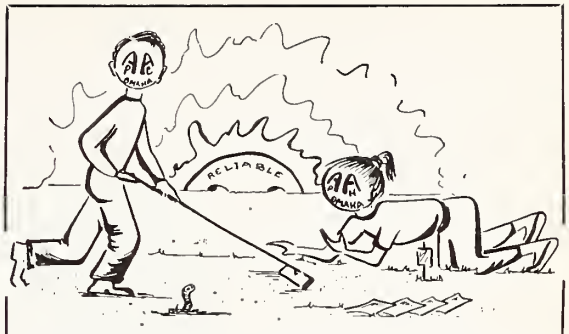
Failure To Diagnose Appendicitis Results in Death.—An eighteen-year-old boy died of peritonitis as a result of a ruptured appendix. An 84-year-old physician had diagnosed his condition as a "bad stomach ache" and had prescribed medicine. A jury found the physician guilty of negligence and awarded $5,000 in damages.—*Gutierrez v. Wylder,* District Court, Bernalillo County, Arizona, Dec. 15, 1961. ◄

—there is a need for a general practitioner, pediatrician, orthopedic surgeon and internist. Office space available. Contact Dr. G. O. Larson, 1110 Indiana Ave., La Porte about openings and Gerald N. Wagner, D.D.S., 905 Indiana Ave., La Porte, concerning office space.

Morgan County — MARTINSVILLE — Office and equipment of the late Alan Johnston, M.D., available. Office is located five miles north of Martinsville. Contact Mrs. Alan Johnston, 1039 East Jackson St., Martinsville.

St. Joseph County—SOUTH BEND—Opening for an associate physician at the Healthwin Hospital (St. Joseph County Tuberculosis Hospital), 130 beds. Contact Edward W. Custer, M.D., Supt., and Medical Director, 20531 West Darden Rd., South Bend, Ind.

Steuben County—HAMILTON—Population 1,000 with large potential area. Located in the resort and lake region of Indiana on the shores of Lake Hamilton. Nearest hospital at Angola which is a fifteen-minute drive—good roads. A new 70-bed hospital will be completed in the fall of 1963 at Auburn which is fifteen miles from Hamilton. Opening for a general practitioner or a general practioner with surgical training as an associate or partner with Dr. Wayne Schrepferman. New office building equipped for two physicians and a dentist. No investment necessary. Contact Doctor Schrepferman at Hamilton. Telephone 2725. ◄

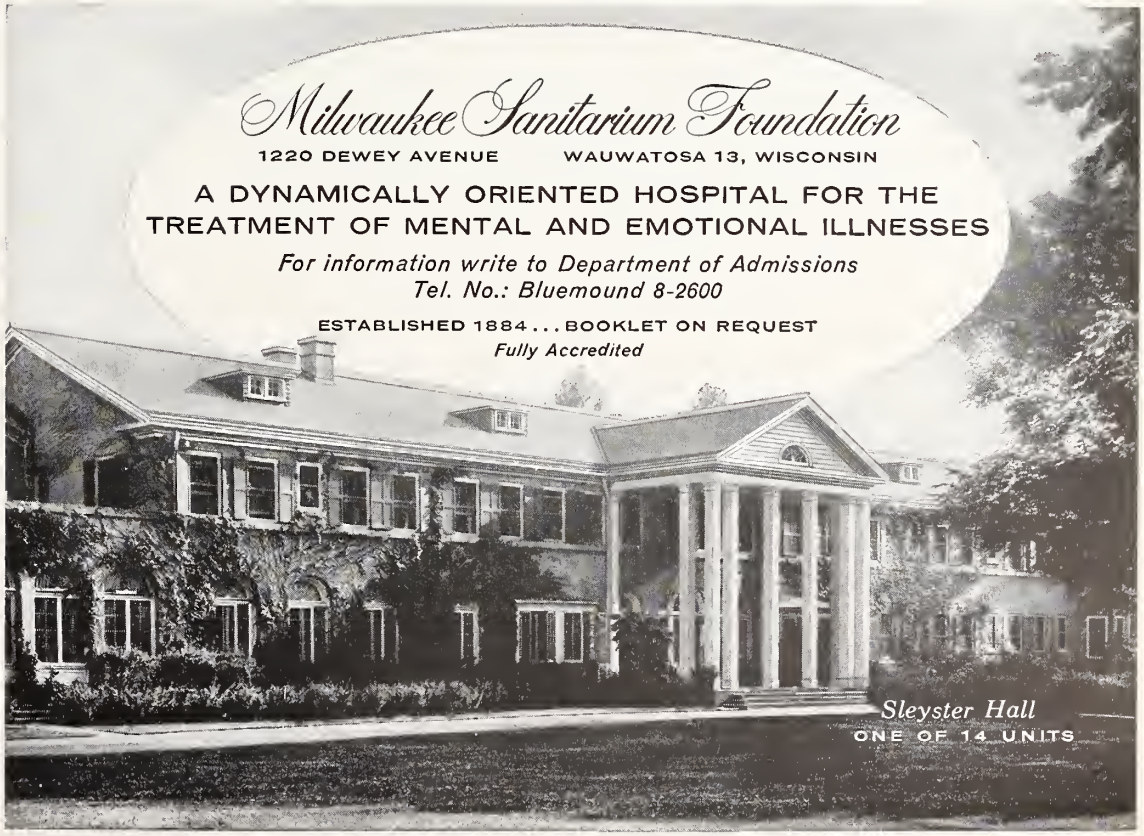


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The standards for membership in the National Association of Blue Shield Plans include:

Medical Society Approval: A Plan shall have the approval of the state medical society or of the county medical society or societies by which it was established or approved.

Not-for-Profit Operation: A Plan shall operate on a not-for-profit basis. A Plan organized under laws other than nonprofit enabling acts shall include in its by-laws a specific provision for operation on a not-for-profit basis. No director, officer or any other individual shall receive, directly or indirectly, any profits from the operations of a Plan.

Free Choice of Physician: Subject to express provisions of law, there shall be free choice by the patient of any duly licensed physician practicing in the area served by the Plan.

Patient-Physician Relationship: The personal relationship between patient and physician shall not be abridged.

Member Benefits: Benefits may be provided on a service or indemnity basis—or both. A service benefit Plan shall attempt to provide a maximum family income limit high enough to include potentially a substantial majority—75% or more—of the population in its area of operation. Such income limits shall be related to a schedule of maximum payments for eligible services that is based upon the normal average medical charges for such professional services rendered in the area for persons within the income levels specified for service benefits. An indemnity Plan shall seek to establish and maintain a schedule of payments that approximates the normal average medical charges for eligible services rendered in that area for persons in the lower and medium income groups, comprising a substantial majority—75% or more—of the population in its area of operation, thus providing its members in these income groups with reliable assurance that the Plan's payments will meet the actual costs of the services covered by their contracts. Where indemnities are paid to the member, it shall be clearly stated that these indemnities are for the purpose of assisting in paying the charges incurred for medical service and do not necessarily cover the entire costs of medical service, except under specific conditions. (Your Indiana Blue Shield is an indemnity Plan.)

Public Policy: A Plan shall be organized and operated to provide the greatest possible service to the member. A Plan's certificates shall clearly state the benefits and the conditions under which such benefits will be provided. All exclusions, waiting periods, and deductible provisions must be

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Before prescribing, consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.

References: 1. DeNyse, D. L. : M. Times *87*:1512 (Nov.) 1959.
2. Gruenberg, F.: Current Therap. Res. *2*:1 (Jan.) 1960.

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I.U. SCHOOL OF MEDICINE TO ESTABLISH SPECIAL CLINICAL RESEACH CENTER

The Indiana University School of Medicine is establishing its third major research program of the past nine months—a Clinical Research Center—for which a seven-year grant of $1,900,000 has been awarded by the U. S. Public Health Service. Already in progress are a Heart Research Center and a Childhood Schizophrenia Study Center for which seven-year grants of $4,383,-700 for heart and $819.998 for schizophrenia study were made by the U. S. Public Health Service.

The Clinical Research Center, directed by Dr. William P. Deiss, professor of medicine and biochemistry at the I. U. Medical School for the past three years, will support longer periods of study in child and adult patients than is possible under routine hospitalization.

Board of Health Staff to Study Agencies Working With Handicapped

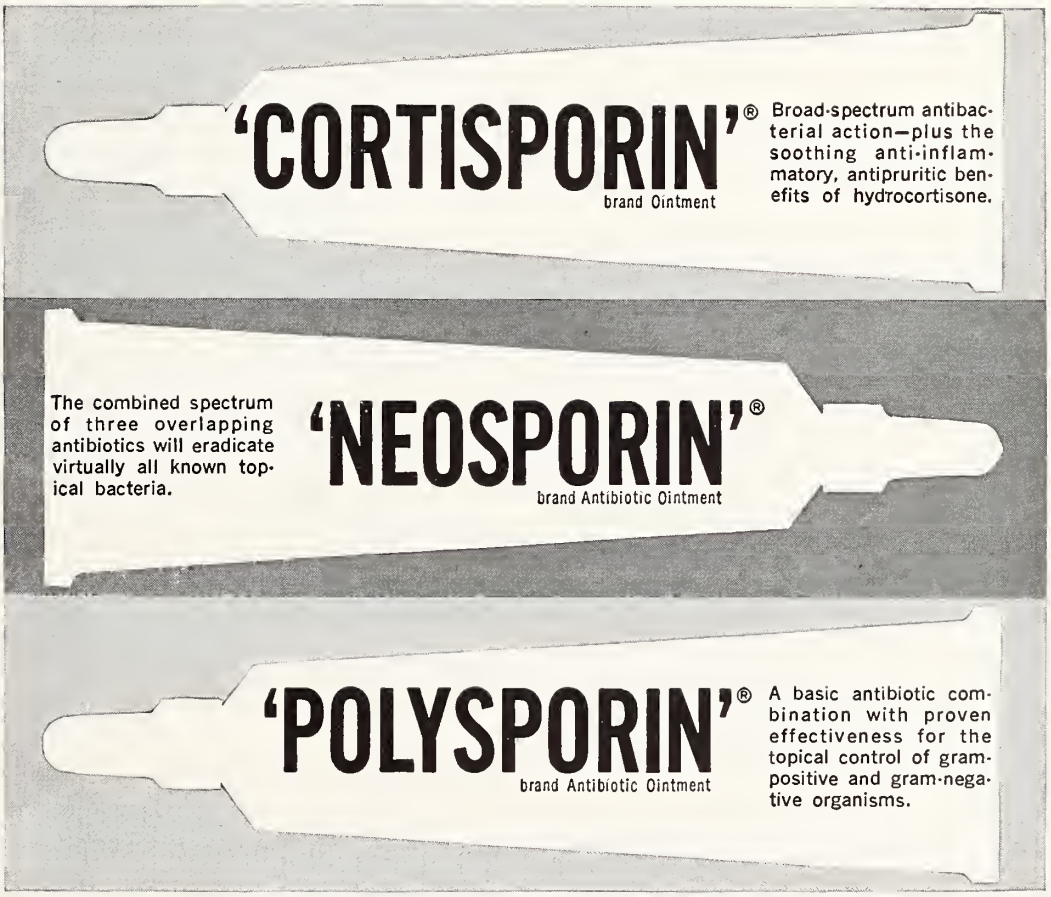
Dr. A. C. Offutt, State Health Commissioner, has announced that a statewide survey of agencies working with the handicapped, will be conducted by the State Board of Health staff. The survey is a result of recommendations made by the Commission for the Handicapped and its purpose will be to obtain detailed information concerning the operation of each of the approximately 1,500 agencies involved in providing services for handicapped individuals.

Accepted Applicants and Their Families Attend I.U. "Opportunity Day"

More than 100 accepted applicants for admission to the Indiana University School of Medicine next fall, many of them accompanied by wives and parents, attended the second annual "Opportunity Day" held by the school recently. The visitors, welcomed by Dean John D. VanNuys, met members of the faculty, inspected laboratories and teaching facilities and held conferences on problems of housing, finances, and employment.

At noon the visitors attended a luncheon given by the medical alumni association, at which they heard talks by presidents of

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Neomycin Sulfate	—	5 mg.	5 mg.
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the state medical association, the alumni organization and the chairman of the admissions committee.

New League of Nursing Booklet Available to Physicians

A description of the five types of educational programs current in nursing—practical nursing, associate degree, diploma, bachelor degree and graduate education in professional nursing—has been issued by the National League for Nursing, New York, in a folder titled "Nursing Education Programs Today."

The booklet is designed to interpret to nurses and to allied health and education professions the ways by which students of nursing prepare for beginning positions and for the higher level responsibilities that require additional preparation. It contains information that also will be useful to counselors and others advising young people about education in this field.

Single copies of the booklet are free upon request to the National League for Nursing, 10 Columbus Circle, New York 19, N. Y. Quantities are available at these rates: 2 to 99 copies, 20¢ each; 100 to 499 copies, 15¢ each.

Drs. Hieber and Hanna Appointed

Recent appointments to the faculty of the Indiana University School of Medicine include: Frank R. Hieber, M.D. former instructor in medicine at the University of Minnesota and clinical investigator at the Minneapolis VA hospital, as assistant professor of Medicine and clinical hematological consultant; Bertram L. Hanna, M.D., who has been a senior research geneticist with the National Institutes of Health, as assistant professor of Neurology and Medicine. Both appointments were effective February 1.

Sports Medicine Newsletter Available to Physicians

"Medicine in Sports," a newsletter devoted exclusively to reporting the latest information on the care and prevention of athletic injuries, is now being distributed to all physicians interested in the subject as a professional service by the Rystan Company, Mount Vernon, N. Y. Physicians interested in receiving the publication are invited to send their requests to Charles Stanton, Editor, "Medicine in Sports," c/o the Rystan Company, 7 North MacQuesten Parkway, Mount Vernon, N. Y.

The publication, which has been regularly available until now only to physicians in the Eastern states, is intended to fill a gap created by the rapidly growing interest in sports medicine. While many professional journals cover the subject intermittently, "Medicine in Sports" regularly provides rapid summaries of material in the literature, coverage of meetings and symposia on a nation-wide basis, and exclusive articles by authorities in the field.

Plans Underway for Two Major Building Programs at I.U. Medical Center

Plans are being drafted for two major construction projects at the Indiana University Medical Center, a new adult general hospital and a combined surgery-radiology-rehabilitation addition to the James Whitcomb Riley Hospital for Children. A "starting" appropriation of $2,000,000 for the adult hospital has been provided by the Indiana General Assembly.

Dr. F. Bruce Peck, Jr., Promoted to Senior Physician Post at Lilly's

Dr. F. Bruce Peck, Jr., of Indianapolis, a member of the clinical research division of Eli Lilly and Company has been advanced to the post of senior physician. Dr. Peck was in charge of the clinical evaluation of Lilly's rabies vaccine and improved diphtheria-tetanus-pertussis vaccine.

PUBLIC HEALTH SERVICE BOOKLET

The 1961 issue of "Immunization Information for International Travel," an official publication of the Public Health Service has been issued and is available from the Superintendent of Documents, Washington 25, D. C., for 25 cents. ◄

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FUTURE MEETINGS, SEMINARS, COURSES

ALLERGY AND IMMUNE MECHANISMS COURSE MAY 8-10 AT METHODIST

The Allegy Department of the Methodist Hospital Graduate Medical Center will present an intensive course in Allergy and Immune Mechanisms on May 8, 9, 10, 1962. The course will cover lectures, movies, lantern slide studies, and practical laboratory demonstrations of skin testing techniques and treatment. There will also be a demonstration of the preparation and the technique of administration of the repository injection for inhalant allergic disease. A competent local faculty, as well as distinguished visitors (Drs. Leo Criep and Edwin Fisher from the University of Pittsburgh) will participate.

The registration fee is $25.00. Application blanks and a detailed program may be obtained by addressing inquries to: Irvin Caplin, M.D., c/o Director of Medical Education, Methodist Hospital Graduate Medical Center, Indianapolis 7.

Annual Otolaryngologic Assembly Set for October 20-26 in Chicago

The University of Illinois College of Medicine Department of Otolaryngology will offer an intensive postgraduate basic and clinical program under the direction of Dr. Emanuel M. Skolnik, October 20-26. This Assembly is designed to bring to specialists a wide variety of current advances in management, therapy and philosophies. Review of basic morphologic features under the direction of Dr. Maurice F. Snitman and Dr. Frederic J. Pollock is also included, and will feature laboratory demonstrations and prosection, all augmented by visual aids.

Interested physicians should direct communications to the Department of Otolaryngology, University of Illinois College of Medicine, 1853 West Polk Street, Chicago 12, Illinois.

"TODAY'S CHILD" INSTITUTE

A two-day institute on the subject of "Today's Child" will be held at Indiana University Medical Center on April 25 and 26. The registration fee will be $4.00. A follow-up work-conference for professional nurses will be conducted on April 27.

Indiana Conference on Medical Education

The Committee on Medical Education of ISMA will conduct a conference on medical education on May 2, 1962. The program will be conducted largely on the workshop principle, and will cover five subjects. Dr. W. S. Wiggins, from the AMA Congress on Medical Education will give the foreword and will conduct the summation. Subjects to be discussed will be (1) Current status of responsibility and liability of hospital personnel; (2) A practical education approach to rural medicine in the small community; (3) Stimulating interest in the teaching of basic medical science in the community hospital; (4) Ways of meeting the cost of education in the community hospital; and (5) How can the medical school and the community hospital help one another with their education program?

Each workshop will have two co-chairmen. The conference will run from 11 A.M. to 4:30 P.M., at the Student Union Building of Indiana University Medical Center. Fee for the conference will be $5.00 which will include the lunch. All members of ISMA interested in the problems of graduate and postgraduate education in hospitals are invited and urged to attend.

OPHTHALMOLOGY AND OTOLARYNGOLOGY MEETING

The West Virginia Academy of Opthalmology and Otolaryngology will hold its annual meeting at the Greenbrier Hotel, White Sulphur Springs, West Virginia on April 23, 24 and 25 this year.

For additional information, please contact the secretary, Dr. Worthy M. McKinney, Professional Park, Beckley, West Virginia.

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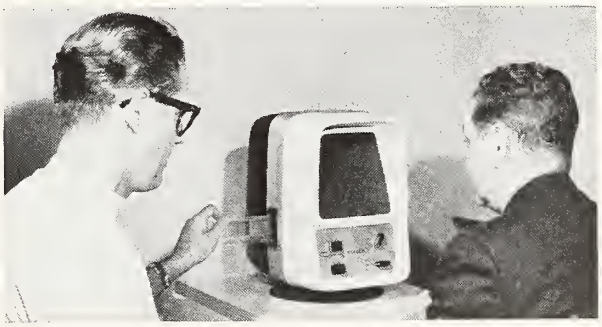
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MONTHLY REPORT—February, 1962

Disease	Feb. 1962	Jan. 1962	Dec. 1961	Feb. 1961	Feb. 1960
Animal Bites	342	283	330	334	224
Chickenpox	593	531	460	897	1068
Conjunctivitis	141	105	63	150	152
Diptheria	1	0	0	0	2
Dysentery, Unspecified	86	66	41	94	50
Impetigo	111	119	136	88	76
Infectious Hepatitis	136	123	180	234	91
Infectious Mononucleosis	50	24	17	14	19
Influenza	9752	5298	1135	495	11387
Measles (Rubeola-Rubella)	755	359	219	835	940
Meningitis, Meningococcal	4	2	2	2	2
Meningitis, Other	16	4	21	2	12
Mumps	511	368	217	469	298
Pertussis	7	3	17	9	39
Pneumonia	263	203	198	237	341
Poliomyelitis	0	2	3	0	0
Streptococcal Infections	727	555	423	874	1048
Tinea Capitis	36	9	20	27	38
Tuberculosis (Active)	135	92	125	Not Available	Not Available

Deaths

John E. Hingeley

Dr. John E. Hingeley, assistant medical superintendent and former clinical director of Muscatatuck State School at Butlerville, passed away Jan. 28 at the age of 46.

Dr. Hingeley, who had been at the school six years, was named assistant superintendent last July. Dr. Hingeley had practiced medicine in Lexington, Ky. before coming to Muscatatuck.

Charles Jump, M.D.

Dr. Charles Jump, a member of the ISMA 50-Year Club, passed away Jan. 25 in Muncie.

A graduate of Purdue University and Indiana University Medical School, Dr. Jump had practiced medicine in Selma for over 50 years. He was widely known in Eastern Indiana and was a lifelong resident of Delaware County.

Alan Johnston, M.D.

A 46-year old Martinsville general practitioner, Dr. Alan Johnston, passed away Feb. 24 in his home.

Dr. Johnston was a native of Indianapolis and formerly resided at Plainfield. He went to Martinsville two years ago.

Charles Kern, M.D.

Dr. Charles B. Kern, 89, a former resident of Muncie, died Feb. 13 at the Arcadia Rest Home.

Dr. Kern was for many years a prominent Lafayette physician until moving to Muncie in 1940. He was a member of the Indiana State Board of Health from 1915 until 1923 and a member of the ISMA 50-Year Club.

Martha A. O'Malley, M.D.

Dr. Martha O'Malley, 52, director of the Division of Hospital and Institutional Services at the Indiana State Board of Health, passed away Feb. 20 in Iowa.

For the past 16 years, Dr. O'Malley had directed the licensing program for Indiana hospitals, as the State Board of Health representative to the Indiana Hospital Licensing Council.

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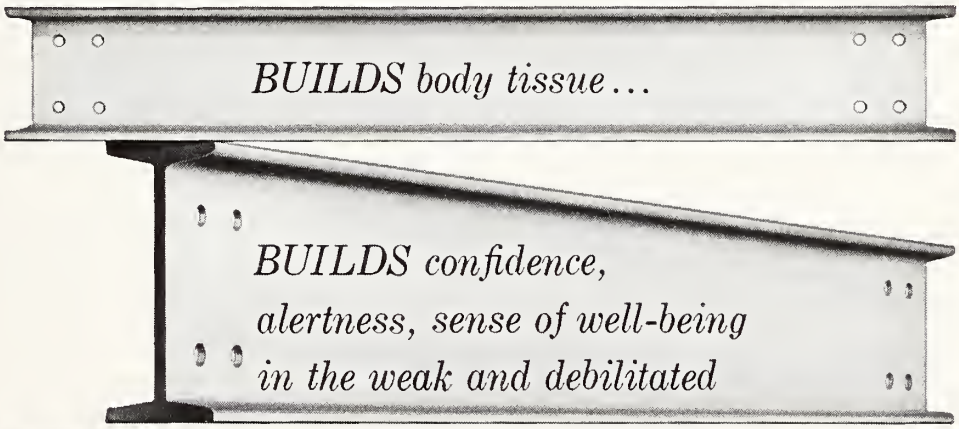
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*animal data

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A native of Waukon, Iowa, Dr. O'Malley worked at various times in Iowa, Illinois, Connecticut, New York and Massachusetts. She was a Diplomate of the American Board of Pediatrics and received certification to this board in 1944.

Basil M. Merrell, M.D.

Dr. Basil M. Merrell, general practitioner in Rockville since his discharge from the Army after World War II, passed away Feb. 21 in Danville, Ill.

Dr. Merrell, 60, served overseas with the Persian Gulf command and in the India-Burma-China Theater for 28 months. At one time he was post surgeon in the Army War College at Washington, D. C. Dr. Merrell practiced at Brownstown before going to Rockville.

Arthur C. Rettig, M.D.

Dr. Arthur C. Rettig, well-known Muncie physician, passed away Feb. 17. He was 59.

A graduate of Indiana University School of Medicine, class of 1928, Dr. Rettig was on the attending staff at Ball Memorial Hospital.

Philip L. Sthair

A 39-year-old Normal, Ill., physician, Dr. Philip L. Sthair, passed away Jan. 11 in his home.

Dr. Sthair, formerly of Goshen, was a specialist in internal medicine and was on the staff at the Fruin Clinic at Normal for the last four years.

Roland E. Wynne, M.D.

Dr. Roland E. Wynne, 76, a Bedford physician who was county coronor there for 30 years, passed away Feb. 26.

Dr. Wynne was medical inspector for Bedford Schools for 31 years and had served continuously on the Bedford Library Board from 1921 until his death. As Bedford school physician, he instituted the first real health program in any Indiana school. ◄

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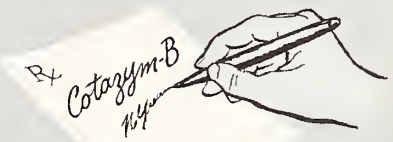
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Dosage: 1 or 2 tablets with water just before each meal.

Organon

REFERENCES: 1. Best, E. B., Hightower, N. C., Jr., Williams, B. H., and Carobasi, R. J.: South. M.J. 53:1091, 1960. 2. Analytical Control Laboratories, Organon Inc. 3. Best, E. B., et al.: Symposium at West Orange, N. J., May 11, 1960. 4. Thompson, K. W., and Price, R. T.: Scientific Exhibit Section, A.M.A., Atlantic City, N. J., June 8-12, 1959. 5. Weinstein, J. J.: Discussion in Keifer, E. D., Am. J. Gastro. 35:353, 1961. 6. Ruffin, J. M., McBee, J. W., and Davis, T. D.: Chicago Medicine, Vol. 64, No. 2, June, 1961. 7. Berkowitz, D., and Silk, R.: Scientific Exhibit Section, A.M.A., New York, June 25-30, 1961. 8. Berkowitz, D., and Glassman, S.: N. Y. St. J. Med. 62:58, 1962.

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County News

Sixteen more Indiana county medical societies have announced new officers. Physicians taking office recently in their respective counties are:

Adams: C. William Freeby, president; Robert Boze, vice-president; Norval S. Rich, secretary-treasurer; James Burk, delegate; Howard Luginbill, alternate.

Carroll: Charles L. Wise, president; George Wagoner, vice-president; Robert M. Seese, secretary-treasurer; T. Neal Petry, delegate; Charles L. Wise, alternate.

Clinton: Francis E. Carrel, president; Chester Waits, vice-president; Earl Applegate, secretary-treasurer; Robert A. Hedgcock, delegate.

Decatur: Robert P. Acher, president; Robert Porter, vice-president; James T. Morrison, secretary-treasurer; William R. Shaffer, delegate.

DeKalb: Loren E. Jinnings, president; John H. Hines, vice-president; Clifford J. Shultz, secretary-treasurer; Evered E. Rogers, delegate; Charles I. Weirich, alternate.

COOK COUNTY
GRADUATE SCHOOL OF MEDICINE

CONTINUING EDUCATION COURSES
STARTING DATES — SPRING-SUMMER, 1962

Surgical Technic, Two Weeks, June 4, July 23
Surgery of Colon & Rectum, One Week, June 4
General Surgery, One Week, May 7
Gynecology, Office & Operative, Two Weeks, June 11
Vaginal Approach to Pelvic Surgery, One Week, May 14
Obstetrics, General & Surgical, Two Weeks, April 30
Pain Relief in Childbirth, 3 Days, July 11
Proctoscopy & Sigmoidoscopy, One Week, July 16
General Practice Review, One Week, May 21
Advanced Electrocardiography, One Week, June 18
Gallbladder Surgery, 3 Days, June 18
Surgery of Hernia, 3 Days, June 21
Neuromuscular Diseases, Two Weeks, June 11
Hematology, One Week, June 4
Advances in Medicine, One Week, May 7
Blood Vessel Surgery, One Week, May 14
Breast & Thyroid Surgery, One Week, May 21
Fractures & Traumatic Surgery, Two Weeks, June 11
Diagnostic Radiology, Two Weeks, April 23

TEACHING FACULTY—ATTENDING STAFF OF COOK COUNTY HOSPITAL

Address:
REGISTRAR, 707 South Wood Street, Chicago 12, Illinois

Fulton: E. V. Herendeen, president; William J. Rusler, vice-president; Dean K. Stinson, secretary-treasurer and delegate; K. K. Kraning, alternate.

Grant: John Woodbury, president; William A. Kootz, vice-president; Eugene S. Rifner, secretary-treasurer; Robert Brown, delegate; H. Allison Miller, alternate.

Huntington: C. S. Ray, president; W. Van Campen, vice-president; P. E. Doermann, secretary-treasurer; R. W. Wagner, delegate; C. S. Ray, alternate.

Kosciusko: John L. Hillery, president; John Arford, vice-president; Pearl H. Pierson, secretary-treasurer; William Cron, delegate; John Arford, alternate.

Morgan: Kenneth Comer, president; Robert E. Brubeck, secretary-treasurer; Kenneth Comer, delegate; Leon Gray, alternate.

Posey: John Crist, president; Paul Boren, vice-president; Herman Hirsch, secretary-treasurer; Frank Oliphant, delegate; John Vogel, alternate.

Putnam: Anne S. Nichols, president; Dick Steele, vice-president; James P. Stephens, secretary-treasurer; Dick Steele, delegate; Richard Veach, alternate.

Shelby: W. L. Dalton, president; L. A. Arata, vice-president; J. H. Tower, secretary-treasurer; P. R. Tindall, delegate; W. L. Dalton, alternate.

Warrick: Arthur Rogers, president; Bowen Hoover, vice-president; Robert H. Terry, secretary-treasurer; W. C. Stover, delegate; Robert C. Colvin, alternate.

Washington: E. R. Apple, president; R. L. Fultz, vice-president; C. B. Carty, secretary-treasurer; E. R. Apple, delegate; C. B. Carty, alternate.

White: S. E. McClure, president; W. W. Houser, vice-president; W. M. Dickerson, secretary-treasurer; Nolan A. Hibner, delegate; John C. Carney, alternate.

Continued on page 552

REHABILITATION...

is Not a one man job!

Recovery from a severe physical disability depends largely upon the patient's motivation to return to self-dependence. But the majority require help.

At this hospital, modern rehabilitation provides that assistance as needed, through a team effort combining the talents of these professionals—

- You—the Referring Physician
- Hospital physicians, physiatrists and other medical specialists
- Your Patient
- The Vocational Counselor
- The Occupational Therapist
- The Social Service Worker
- The Registered Nurse
- The Speech Therapist
- The Clinical Psychologist
- The Laboratory Technician
- The Physical Therapist



. . . this team concept is applied to

• hemiplegia • paraplegia • quadriplegia • amputations • arthritics • degenerative diseases of the nervous system • traumatic disabilities of the hand • cardiac work classification.

. . . Admission by Medical Referral—referring physician has courtesy staff privileges, receives interim progress reports, and at discharge of his patient, a summary with recommendations for continued treatment. Out patient therapy is encouraged.

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THE REHABILITATION INSTITUTE OF CHICAGO : *401 E. OHIO ST., CHICAGO 11, ILL.*

an accredited hospital, affiliated with Northwestern University : *DElaware 7-0775*

COUNTY NEWS

Continued from page 546

Twelfth District

Dr. Stephen C. Michaelis has been elected president of the Twelfth District Medical Society. Also elected were Dr. Donald Mason, Angola, vice-president, and Dr. William R. Clark, secretary-treasurer. The annual meeting will be May 16 at Fort Wayne.

Additional news from the county societies is as follows:

Adams

Nine members of the Adams County Medical Society met Jan. 9 in the Community Center at Decatur. The group viewed a movie entitled "Conization of the Cervix."

Allen

A doctor-clergy panel discussed "Concern and Care for the Aged" at the Feb. 6 meeting of the Allen County Medical Society. There were 112 members attending. Following the program, Dr. John Farquhar gave a report on the Legislative Conference in Chicago.

Bartholomew-Brown

A clarification of the term "Medical Only" in Old Age Assistance with state and county welfare officers highlighted the Feb. 14 meeting of the Bartholomew-Brown County Medical Society. There were 19 members attending.

Decatur

Field Secretary R. J. Amick discussed the coming House of Delegates meeting of the ISMA with nine members of the Decatur County Medical Society Feb. 16.

Carroll

Dr. James McLaughlin discussed the general practitioner's role in the prevention of blindness at the Jan. 17 meeting of the Carroll County Medical Society. Seven members were present.

Clinton

Clinton County Medical Society held an open meeting Jan. 30. Physicians invited patients over 65 to attend and there was a gathering of 350 people. Paul Hill, from R. & R. Service, Inc., was the speaker.

(See page 490 for details.)

Dearborn-Ohio

A panel of Drs. Streck, Baker and Hunter spoke on the subject of "Strokes" before the Dearborn-Ohio County Medical Society Feb. 8. Twelve members attended.

Fountain-Warren

Dr. Harold W. Keschner, pathologist at St. Elizabeth Hospital, Danville, Ill., discussed Septicemia with 9 members of the Fountain-Warren County Medical Society Feb. 1.

Hamilton

A panel discussion on heart diseases was featured at the Feb. 13 meeting of the Hamilton County Medical Society. Speakers were Drs. R. H. Behnke, P. Genovese and R. P. Scott, Indianapolis, and Dr. Doyle B. Manhart, Noblesville. Seventeen members attended.

Huntington

Dr. R. Koepfer spoke on Osteoarthritis at the Feb. 13 meeting of the Huntington County Medical Society.

Jefferson-Switzerland

Twenty-one members of the Jefferson-Switzerland Medical Society heard a talk by Dr. Theodore C. C. Fong on geriatrics at their Feb. 6 meeting. A representative of the local welfare department also spoke on the new welfare program for the aged.

LaPorte

Dr. Theodore B. Swartz, professor of Medicine at the University of Illinois, spoke before 44 members of the LaPorte Medical Society Feb. 20. His subject was "Differential Diagnosis and Treatment of Hypoglycemia."

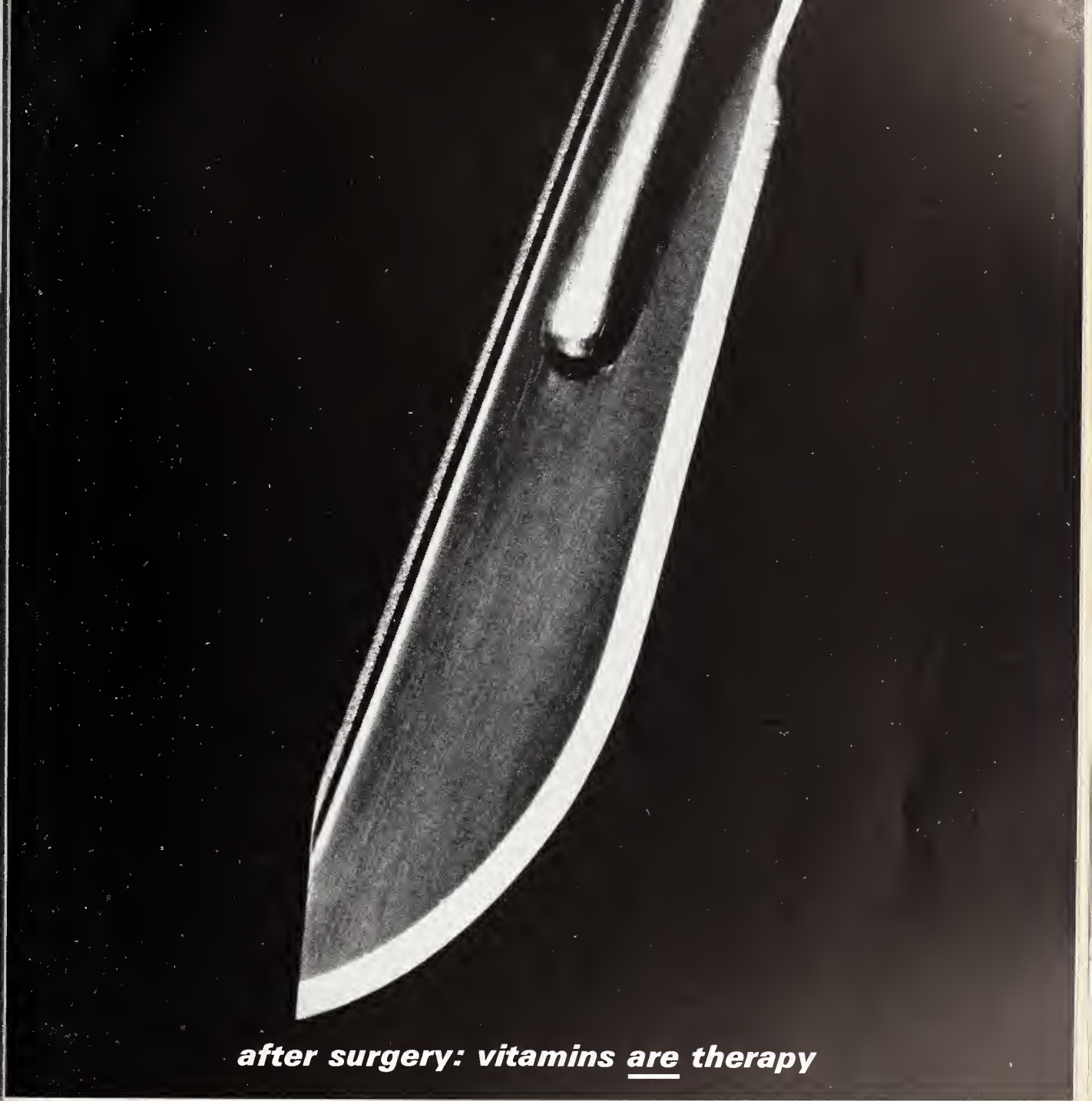
Lawrence

"New State Welfare Legislation" was the title of a talk by Mr. John Sherwood, county welfare director, before the Feb. 8 meeting of the Lawrence County Medical Society. There were 21 members present.

Montgomery

Dr. Cyril Taylor discussed nausea and vomiting in the post-op patient with 28 members of the Montgomery County Medical Society Feb. 15.

Continued on page 554



after surgery: vitamins are therapy

Nutritional supplementation is basic to postoperative care. Therapeutic allowances of B and C vitamins help meet increased metabolic requirements and compensate for stress depletion. STRESSCAPS can set the patient on a more favorable course and contribute to full recovery. Packaged in decorative "reminder" jars of 30 and 100.

Each capsule contains:	
Vitamin B_1 (Thiamine Mononitrate)	10 mg.
Vitamin B_2 (Riboflavin)	10 mg.
Niacinamide	100 mg.
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Vitamin B_{12} Crystalline	4 mcgm.
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COUNTY NEWS

Continued from page 552

Owen-Monroe

"Pediatric Surgery" was the topic discussed at the Owen-Monroe County Medical Society meeting Feb. 22. Dr. Cyrus Houshmand spoke before the 33 members present.

Parke-Vermillion

Twelve members of the Parke-Vermillion County Medical Society discussed the blood bank at their Feb. 21 meeting.

Perry

"Resuscitation of the Newborn" was the title of a film viewed by eight members of the Perry County Medical Society at their Feb. 6 meeting.

Putnam

Dr. Richard Nay spoke of his recent experiences in the Congo before the Putnam County Medical Society gathering Feb. 9. There were 14 members present.

Randolph

Seven members of the Randolph County Medical Society heard Dr. Byron Park speak on the problem of backaches at the Feb. 12 meeting. Dr. Park is an orthopedic surgeon from Richmond, Ind.

Rush

The Rush County Medical Society heard Dr. Richard Nay speak on his recent work at a hospital in Katanga Province of the Congo Feb. 15. The Woman's Auxiliary also attended the lecture of the evening.

Shelby

Dr. Don E. Wood spoke on "Legislation and Problems for Medicine in Legislation" before the Jan. 17 meeting of the Shelby County Medical Society.

At the Feb. 7 meeting, Dr. Luis Paz, of the Inlow Clinic, Shelbyville, discussed "Urology" with 17 members of the society.

Steuben

Mr. Howard Grindstaff led a discussion of the King-Anderson and Kerr-Mills bills at the Feb. 5 meeting of the Steuben County Medical Society. Ten members attended.

Wayne-Union

Dr. Richard Stander, associate professor of obstetrics and gynecology at the Indiana University Medical Center, spoke before 40 members of the Wayne-Union County Medical Society Feb. 13. His subject was "Current Uses of Progestational Agents." ◄

HOUSE OF DELEGATES

Special Meeting—March 11, 1962

A special meeting of the House of Delegates was held in the Rice Auditorium, Indiana State Board of Health Building, Indianapolis, at 11:00 a.m., EST, Sunday, March 11, 1962. The president, Dr. Harry R. Stimson, Gary, presided.

CREDENTIALS COMMITTEE REPORT

The Credentials Committee, consisting of Drs. Scamahorn and Covalt, reported that the attendance slips showed 68 delegates, 19 alternate delegates, 20 officers, including the past presidents, and 13 councilors, present, and by consent the report of the committee was accepted in lieu of a roll call.

The attendance, as recorded on the signed slips, was as follows:

County	Delegate
ADAMS	James Burk—Absent
ALLEN	Frederic W. Brown—Present
	Eugene F. Senseny—Present
	W. Lloyd Bridges—Present
	F. L. Schoen—Present
	J. R. Ball—Present
BARTHOLOMEW-BROWN	David Adler—Absent
	Kenneth Schneider—Present
BENTON	Donald L. McKinney—Present
BOONE	Clarence G. Kern—Present
CARROLL	T. Neal Petry—Present
CASS	Earl W. Bailey—Absent
CLARK	Eli Goodman—Present
CLAY	Charles E. Moon—Absent
CLINTON	Robert A. Hedgcock—Present
DAVIESS-MARTIN	C. Philip Fox—Present
	E. B. Lett—Absent
DEARBORN-OHIO	Leslie M. Baker—Present
	Gordon S. Fessler—Absent
DECATUR	William R. Shaffer—Absent
DEKALB	Evered E. Rogers—Absent
DELAWARE-BLACKFORD	Thomas M. Brown—Present
	Glynn A. Rivers—Present
	Ed Wierzalis—Absent
DUBOIS	John H. Barrow—Present
ELKHART	F. W. Bigler—Present
	John P. Turner—Present
FAYETTE-FRANKLIN	G. T. Watterson—Absent
	H. N. Smith—Absent
FLOYD	Donald LaFollette—Present
FOUNTAIN-WARREN	Peter R. Petrich—Present
	James W. Crain—Absent
FULTON	Dean K. Stinson—Absent
GIBSON	Virgil McCarty—Present
GRANT	Robert M. Brown—Present
GREENE	Jerome A. Graf—Absent
HAMILTON	John Haywood—Present
HANCOCK	Wayne Endicott—Present
HARRISON-CRAWFORD	William E. Amy—Absent
	Jesse Benz—Absent
HENDRICKS	O. T. Scamahorn—Present
HENRY	William S. Robertson—Absent
HOWARD	Garvey Bowers—Present
HUNTINGTON	Richard W. Wagner—Present
JACKSON-JENNINGS	Kenneth Bobb—Present
	F. D. Ellis—Absent
JASPER-NEWTON	Ernest R. Beaver—Absent
	Arthur Schoonveld—Present
JAY	William H. Cripe—Absent
JEFFERSON-SWITZERLAND	Francis Prenatt—Absent
	Noel Graves—Absent
JOHNSON	Joseph F. Ferrara—Present
KNOX	Virgil C. McMahan—Present
KOSCIUSKO	William Cron—Present
LA GRANGE	Philip E. Yunker—Absent
LAKE	Donald T. Ramker—Present
	M. Shellhouse—Present
	T. C. Tyrell—Present
	P. J. Rosenbloom—Present
	John B. Nicosia—Present
	John P. Birdzell—Present
	W. A. Nelson—Present
	R. N. Bills—Present
	J. W. Mather—Present
LA PORTE	Gene R. Hay—Present
	Thomas D. Armstrong—Present
LAWRENCE	Howard T. Hammel—Present
MADISON	P. T. Lamey—Present
	J. L. Larmore—Present
MARION	Richard Appel—Absent
	Warren Coggeshall—Present
	John O. Butler—Present
	Donald R. Hampshire—Present
	Joseph B. Quigley—Absent
	E. K. Stucky—Present
	Harold C. Thornton—Present
	John W. Beeler—Present
	Floyd A. Boyer—Present
	William N. Ellis—Present
	Robert A. Garrett—Present
	James H. Gosman—Present
	Earl J. O'Brian—Present
	Wayne H. Thompson—Present
	Albert M. Donato—Present
	Lester H. Hoyt—Present
	Joseph M. Daly—Present
	Ottis N. Olvey—Present
	Harry Pandolfo—Present
	Ray Tharpe—Present
	Howard S. Williams, Jr.—Present
	A. T. Stone—Present
MARSHALL	James D. Kubley—Present
MIAMI	James Guthrie—Present
MONTGOMERY	James M. Kirtley—Present
MORGAN	Kenneth Comer—Absent
NOBLE	Robert E. Bryan—Present
ORANGE	Philip T. Hodgins—Absent
OWEN-MONROE	Clarence R. McIntire—Absent
	Frederic R. Smith—Absent
PARKE-VERMILLION	Robert Fell—Present
	Milton Herzberg—Absent
PERRY	Bernard P. Kemker—Present
PIKE	Milton Omstead—Absent

County	Delegate
PORTER	Ralph C. Eades—Present
POSEY	Frank Oliphant—Present
PULASKI	William R. Thompson—Absent
PUTNAM	Dick J. Steele—Present
RANDOLPH	Lowell W. Painter—Present
RIPLEY	Bill E. Freeland—Absent
RUSH	Frank H. Green—Present
ST. JOSEPH	Wallace D. Buchanan—Present
	M. E. Whitlock—Absent
	Richard Ganser—Present
	D. L. Dunlap—Present
SCOTT	Marvin L. McClain—Absent
SHELBY	Paul R. Tindall—Present
SPENCER	John C. Glackman, Jr.—Absent
STARKE	Guy B. Ingwell—Present
STEUBEN	Donald G. Mason—Present
SULLIVAN	Joe Dukes—Present
TIPPECANOE	Forrest J. Babb—Present
	Harry E. Klepinger—Present
TIPTON	A. E. Stouder—Present
VANDERBURGH	John P. Sterne—Present
	James H. Crawford—Present
	Joseph C. Lawrence—Present
	Robert Ziss—Present
VIGO	Thomas Conway—Present
	Stuart R. Combs—Present
WABASH	Carl J. Elward—Absent
WARRICK	Wendell C. Stover—Absent
WASHINGTON	Eddie R. Apple—Absent
WAYNE-UNION	Glen Ward Lee—Present
	Clarence G. Clarkson—Present
WELLS	Pierre C. Talbert—Present
WHITE	Nolan A. Hibner—Present
WHITLEY	John L. Langohr—Present

OFFICERS

President—Harry R. Stimson—Present
President-elect—Maurice E. Glock—Present
Chairman of the Executive Committee—Don E. Wood—Present
Member, Executive Committee—Wendell E. Covalt—Present
Chairman of the Council—John M. Paris—Present
Treasurer—Irvin W. Wilkens—Present
Assistant Treasurer—Charles F. Gillespie—Present
Editor of The Journal—Frank B. Ramsey—Present

COUNCILORS

1st District—William B. Challman—Present
2nd District—E. T. Edwards—Present
3rd District—John M. Paris—Present
4th District—Joseph M. Black—Present
5th District—V. Earle Wiseman—Present
6th District—William R. Tindall—Present
7th District—Ralph V. Everly—Present
8th District—Gordon B. Wilder—Present
9th District—Kenneth O. Neumann—Present
10th District—James P. Vye—Present
11th District—E. S. Rifner—Present
12th District—Milton F. Popp—Present
13th District—B. E. Kintner—Present

PAST PRESIDENTS

George R. Daniels—Absent
Franklin S. Crockett—Absent
R. L. Sensenich—Absent
Herman M. Baker—Absent
Karl R. Ruddell—Absent
M. A. Austin—Absent
A. P. Hauss—Absent
Paul D. Crimm—Absent
Wm. Harry Howard—Present
Walter L. Portteus—Present
Walter U. Kennedy—Present
Elton R. Clarke—Absent
Alfred Ellison—Absent
M. C. Topping—Present
Kenneth L. Olson—Present
Earl W. Mericle—Present
Guy A. Owsley—Present

THE PRESIDENT: The next order of business—I would like a motion—it is not exactly necessary I don't believe, but I think it should be on the record—to authorize this House to sit as a Committee of the Whole to consider the three matters to come before it today, which will make reference committees unnecessary.

(Motion made by Dr. Senseny, seconded by many, put to vote, and carried.)

THE PRESIDENT: This House will sit as a committee of the whole which means if there are members present who are not voting delegates who have some pertinent remarks regarding these matters, they will be recognized, because any member of the State Association is recognized before a reference committee.

I would like to say a few opening words before we get started and then after these remarks I will take my place as the presiding officer and not take part in further discussion or deliberation of this meeting unless I leave the chair to do so.

We have heard much these days about executive privileges and I may be accused of exercising this before I'm through with these opening remarks. However, I hope this is not the case for I truly want a well informed House of Delegates, to be able to pass mature judgment on all of the matters to come before it. I have already told you after these remarks I will revert to my proper place as the presiding officer.

I want you all to know also at this time that each man, qualified man, will be recognized and given adequate time to present any facet on any of the subjects to come before this House today and in no way will his remarks be stifled, providing his remarks are pertinent to the matter at hand. I will have to be the judge whether or not a speaker is wandering too far and if the matter comes up where I have to call on someone and ask them to get back on the question, I want you also to know that this delegate, or this speaker, may appeal to the House to overrule my judgment. A majority vote of the House would overrule that judgment.

Also, I would like to request that any man in this audience who is recognized come to the microphone. The remarks of this meeting are being recorded and only in that way can they be recorded properly, and also, only in that way can everyone in this room hear the remarks. When you come to the microphone please give your name and county. Some of you may not think that is necessary because most of you know each other but for the sake of those who do not, please do this.

The House of Delegates being the legislative body of the State Medical Association, this special meeting has been called to pass judgment on three separate matters which I shall enumerate shortly and in the order in which they will be presented to the House.

If there arises in the minds of anyone questions regarding the legality of this meeting let me refer

you to your Constitution and Bylaws which states that such a meeting can be held upon call by the President or by the President at the request of 20 delegates or 50 members of the Association. I have interpreted the acceptance and approval of the report of the Reference Committee on Insurance at the October meeting regarding Resolution No. 26 as such a petition for this meeting.

Also, if any of you wonder why this meeting was not held in February as stipulated by this Committee report, I am informed by our legal staff that only the President can set a date for such a meeting. I didn't delay this arbitrarily by myself, but rather after consultation with the Council and the Executive Committee. I planned to delay the meeting until April principally because of the possibility of bad weather in February preventing many of you from attending this meeting, and also, because we would have liked very much to have had this meeting in conjunction with the dedication of our new headquarters building here in Indianapolis on North Meridian Street.

The reason for setting up the date of this meeting to the present date, as you probably all know, is the need for some judgment to be passed on the AMA Board of Trustees approved AMA Blue Shield Plan for the care of the aged.

Since all the matters to be resolved here today are propositions to be placed before this House for approval or disapproval the presentation will of necessity, in my opinion, be made first by the affirmative side of the proposition. This does not mean, in any way, that the negative side will be stifled by this chair for I assure you at this time that it will not. As I have previously stated I would like to see full and adequate discussion allowed on all the propositions. Although you may have been sent much information on all of these matters I feel sure that one of the matters particularly needs much more dissemination of information regarding it and I take full and sole responsibility in inviting representation from the AMA to give you this information, to answer any questions which you may have to ask them.

Also, I have taken the privilege to ask the chairman of the Commission on Medical Economics and Insurance to give a report from his Commission to this House of Delegates. These men, all of them, are here for informational purposes only and I sincerely hope that you will feel that they are not here for any other purpose. They are not here to sell you a bill of goods and I should hope very much that you would show them courtesy. Whether you agree with them or not, that is not the point.

I shall present these men when these particular propositions are presented to you.

The first matter to be presented to you today is the matter of an increase of the subscription price of the *JOURNAL* of the Indiana State Medical Association from $3.00 to $8.00. This increase was voted by the Council and comes to this House recommended by the Council. I don't know whether or not most of you realize that your State Association publishes one of the better state medical journals in the country and as such I feel that you should be very proud of this as I am.

I believe that there are a few of you who would like to see the quality of the *JOURNAL* reduced.

In the information packet sent to each delegate, there was a rather adequate statement regarding this matter and the reasons for the need for this request. I hope that you have all studied this; however, Dr. Frank Ramsey is in the audience. Dr. Ramsey, as most of you know, is the very able Editor of the *JOURNAL*. Dr. Ramsey will be asked first, when this is presented, to again tell you, by mouth, the need and explanation, and I'm certain Dr. Ramsey would be glad to answer any reasonable questions; by reasonable I mean one that doesn't try to put anyone on the spot because we are not here for that, gentlemen.

The second matter on the agenda to be considered is the AMA Blue Shield Plan, recommended by the AMA Board of Trustees for the Care of the Aged. You have each been sent all the available information and material regarding this plan which was available at the time this information was sent out and this material, I hope, you have studied. Even after studying this material in your packet it is my opinion that we do not yet know enough about the plan, especially the AMA thinking behind this plan, to pass mature judgment one way or the other. As I mentioned previously I have taken the liberty to invite representation from the AMA to give you more information and answer questions about this proposition. We will have Dr. Bert Howard, who is the Assistant to the Executive Vice-President of the AMA, with offices at 535 North Dearborn in Chicago, and who is heading up the legislative front of the AMA.

Also, we have with us Dr. Percy Hopkins, who is vice-chairman of the Board of Trustees of the AMA, and who is from our neighboring state of Illinois. These men will be presented at the time that this proposition is called up for consideration and I hope again that you will hear them out and ask questions, again emphasizing that they are here for informational purposes only. Believe me, gentlemen, don't think that I, or any of your officers, are trying to sell you a bill of goods; we are not.

The last matter to be resolved here today is Resolution No. 26 which, as you know, was the original reason for this House of Delegates requesting a special meeting and about which I am sure most of you know the pros and cons regarding the subject matter contained in the Resolution. I shall ask Dr. John Beeler to bring this to the floor of the House because he was the chairman of the Reference Committee on Insurance at the October meeting which referred this matter to you. Dr. Beeler will simply state what was referred to this body, probably without comment, unless he desires to make some.

I wish to call your attention, in case it has not already been done, to the fact that the Commission

on Medical Economics and Insurance of the ISMA to which this proposition was also referred for study and opinion took up the matter and this Commission has requested its adoption by the ISMA. About this time in the program Dr. Lowell Thomas, as I have mentioned previously, will be asked to give his report from his Commission.

I have the opinion that we may have a motion to table one or more of these propositions. If such a motion is made and seconded all debate and all discussion will be stopped until the motion to table is acted upon and disposed of. You must all realize that any motion to table is usually an instrument to cut off and stifle debate rather than just a legitimate delay to a specific time for a specific purpose; therefore, I would sincerely hope that in the event of such a motion this House would defeat it and allow full and adequate discussion on each of the propositions so that final disposition can be made here today. Only with full discussion can you reach a mature judgment. Thank you.

Now I shall call on Dr. John Paris, chairman of the Council, to present the resolution on the first item that comes from the Council regarding the increase in the subscription price of the *JOURNAL*.

DR. PARIS: Mr. President, members of the House of Delegates: At the special meeting of the Council in February we reiterated our action of January, with one exception. In January, the Council suggested that the subscription price of the *JOURNAL* be raised in the amount of three dollars, which would make it a total of six.

At the February meeting, as Dr. Ramsey will tell you, it was evident that the revenues coming to us from advertising were still declining. They had not started up as he had hoped they would start up and the Council then recommended that the subscription price go to eight dollars.

It is necessary for us to have that amount of money in Indiana to operate our *JOURNAL;* therefore, **I move that the subscription price of the *JOURNAL* of the Indiana State Medical Association be increased from three dollars a year per member to eight dollars a year per member.**

DR. STIMSON: Is there a second to that motion?

Doctor Vye seconded the motion.

Now, as I mentioned previously, I will call on Dr. Frank Ramsey to give you the background and the reason for this request.

DR. RAMSEY: Mr. President, Delegates and guests: The financial trouble of our *JOURNAL* is new, but it is not unique. It involves not only our *JOURNAL* but all medical journals in the United States. For reasons, which I will give you later, it is serious for a state journal and all journals who have small circulations. It affects large national journals but not to such a serious extent.

The financial trouble is due to the fact that there is a relative decrease in advertising revenues and at the same time during the past twelve years there has been a tremendous increase in printing costs. All medical journals in the United States, during the last two years, have fallen off about 30% in advertising revenues.

To go back to the good old days that everyone talks about—in 1940 we all paid two dollars from our dues to the *JOURNAL*. From that source the *JOURNAL* received $6,300 in 1940. Our printing bill that year was $7,000 which meant that our dues payment of two dollars apiece practically paid for the printing.

In 1947, that is seven years later, the printing bill was three times as high as it was in 1940, $21,000, and in that year we changed the two dollars to three dollars. It has been three dollars since 1947 and that is the only thing I know of except a penny piece of gum that hasn't gone up since 1947.

In 1961 our three dollars apiece produced $11,000 for the *JOURNAL*. The printing bill last year, was $66,000, that is six times what our dues paid; where in 1940 our dues paid almost all the printing, last year it paid but 15% of it. These printing costs have gone up a little every year or every two years.

Our advertising has increased likewise as we have gone along and, while printing costs were going up because advertising sold well, we were able to raise the advertising rates at about the same rate that the printing costs when up, until two years ago the increase in advertising rates balanced out the increase in printing costs and we stayed on an even keel.

Two years ago medical advertising fell off about 30%. This means that we dare not raise the advertising rate now. Before when we raised it we not only got more money for each page we sold but we actually sold more pages as we went along. Now, if we raise the rates we will sell less and instead of getting more money we'll get less money. This is what an economic expert calls reaching the point of diminishing returns. This is particularly true for a state journal.

Advertisers in state journals pay three to four times as much per page per reader as do the same advertisers when they advertise in a large circulation national magazine such as *JAMA* or *Medical Economics*.

The postal regulations for second class mail, which the journals belong to, insists that you have no more advertising pages in your journal than you do text pages; therefore, the way to put a medical journal together in order to get the most money and make the advertising pay as much of the publishing costs as you can is to have 50% advertising pages and 50% text pages. This is the formula that our *JOURNAL* and I think almost all journals have operated on for years. Therefore, if we try to publish a smaller *JOURNAL* we can only do this by refusing advertising and by reducing the advertising revenues. If we put in more advertising and less reading material the post office won't deliver the *JOURNAL*.

Our difficulty is not so much in the reduction of advertising which we sell as it is in our inability to raise the rates. If we were now able to sell 100 more pages of advertising for each issue there would still be a large gap between the revenue we can get on present prices for that advertising and what it costs us to print the page of advertising and the page of text which that advertising page carries.

Last year, as a result of this, we had a deficit of $12,000. This came by largely due to two issues one was the Roster Issue, which as you know is large and very useful and the other is the Convention Issue which is also large and contains a lot of special information. Except for these two issues we were on an even keel all year. These two are probably the most important issues we have, however.

There has been several suggestions as to how to live with this reduction in advertising and how to get along with this inability to raise advertising rates and get away with it at the present time. One is to print a smaller *JOURNAL* and, as I pointed out a while ago, when you get into a smaller journal you have to take fewer advertisements. Another suggestion was print it every other month instead of every month. This reduces your advertising by half and will not necessarily make the *JOURNAL* any more economical to produce.

The *JOURNAL* of Hawaii Medical Association has always been published six times a year and they have just raised their annual subscription price to $6.00. If we followed their example we would have to raise ours to $12.00 because they only have six journals a year.

This, as you can see, is especially serious for small circulation journals. You well know that large circulation journals such as *Medical Economics* and there are dozens of such magazines now that you receive cost free, make their entire budget from advertising revenue, they have no subscription income at all. They are able to do this because in the economics of publishing a journal almost all the printing expense of a journal consists of setting the type, making the cuts, assembling all this on a printing machine and running the first few copies. After the first few thousand copies have come off all you need to produce 150 thousand more copies is a little more paper and ink and the time of one pressman and these are very small in relation to the number of typesetters and the highly skilled labor that goes into getting the thing set to start printing. For this reason *Medical Economics*, when they run off a hundred and fifty thousand copies, get, say the last one hundred and forty nine thousand of those copies, for about 5% of what the first thousand cost them and therefore when they come out at the end of a hundred and fifty thousand the cost of their magazine is very little. They can sell advertising to a national advertiser for 25% per page per reader of what we get and make enough money from their advertising to give their magazine away. If we could have a circulation of one hundred thousand there is no doubt at all we wouldn't need any subscription price.

The state of the *JOURNAL* has been compared by some to the ease of which local county society bulletins, for instance, are published. They don't cost much, they don't cost their readers, usually, anything at all. This is because there is a wealth of local advertising which is available to them which is not available to us. Our state *JOURNAL* can't sell local advertising to people here in Indianapolis. We've tried it and there are very few businesses here in Indianapolis that consider our state *JOURNAL* a good advertising medium for an Indianapolis local company, even though a thousand of our members live in Indianapolis.

Statewide advertising is not very plentiful. We get some of it but not much. Actually it is the national advertising that keeps state journals going.

There are other economies which might be adopted to help us out of this. None of these next three things that I mention would economize very much, but they are possibilities, however not very good possibilities. One is that you can print it on cheaper paper and use cheaper ink and cheaper plates. This saves a little money but not much. In addition to that if you get your advertising on poor paper and with poor ink you get fewer advertisers and actually your income will suffer much more than the little money you save on using poor materials. The same thing applies to printing —you can get any kind of printing done, nothing was ever done so cheaply that someone else wouldn't do it for less and printing is a good example of that. Advertisers watch printing like a hawk, they don't like to have their plates and their printing on their advertisement come up smudgy and that is the inevitable result when you get a careless printer.

For myself there is no question about what we should do, if you will pardon a personal opinion, I don't think there is any doubt at all but what we ought to all spend a small amount of money. I myself put a lot more than that in and an increase of $5.00 seems like nothing to me and I know it doesn't seem like that to you or to the doctors that you represent but I can assure you that it would be worthwhile, actually unless we raise the money to publish the *JOURNAL* the only alternative is not to have one. That would bring us to publishing transactions and committee minutes and etc. Publications of this type don't draw advertising hardly at all, we would have no advertising income and the entire cost of publishing a book of transactions would probably cost each member more than the $8.00 which we think is suitable for the *JOURNAL*. I might say in closing that our *JOURNAL* is getting a sort of a national fame. When Wilky and Jim and I go to the national meetings and it isn't all on one thing, sometimes they will say here is the journal that has the nice covers, or yours is the journal that has the

Lieberman stories, we look for them eagerly on that account.

If there are any questions I would be glad to answer them.

The motion to increase the JOURNAL subscription price from $3.00 to $8.00 per year (to become effective January 1, 1963), was put to vote and carried.

Proposal of American Medical Association Board of Trustees and the Blue Shield to offer a special plan for persons over 65.

Statement of Board of Trustees of American Medical Association February 3, 1962

The Board of Trustees, on January 14, 1962, endorsed a proposed Blue Shield Plan for a new nationwide policy covering persons over 65 of modest resources and applauded the Blue Shield for its efforts. This plan conformed with the spirit of a resolution adopted by the American Medical Association in December 1958, at which time the AMA House of Delegates recommended that physicians "expedite the development of an effective voluntary health insurance or prepayment program for the group over 65 with modest resources or low family income," and "that physicians agree to accept a level of compensation for medical services rendered to this group, which will permit the development of such insurance and prepayment plans at a reduced premium rate."

At its meeting today the Board of Trustees expressed its strong commendation of the private health insurance industry for its tremendous development of group and individual health insurance programs for senior citizens and other age groups. The AMA Board urges all physicians to accept an adjusted level of compensation for older persons of modest resources or low family income whether they are covered by private health insurance policies or Blue Shield plans. The AMA Board also urges physicians to consider such special compensation for services rendered to persons in this group whether they have health insurance coverage, a prepayment type policy, or pay directly for such expenses "out of pocket."

The Board of Trustees applauds those employers who are in increasing numbers covering their retired employees and making arrangements for some kind of prepayment or health insurance plan for those about to retire.

The phenomenal development in recent years of prepayment plans and voluntary health insurance—especially among the aged—clearly reflects the preference of Americans for voluntary selection of financing mechanisms rather than for any compulsory government scheme.

A substitute resolution was introduced from the Executive Committee which reads as follows:

WHEREAS, We agree in principle with the action of the Board of Trustees of the American Medical Association regarding the prepayment program for the persons over age 65,

AND WHEREAS, We believe in the best medical care for individuals regardless of financial circumstances, age, or creed,

AND WHEREAS, In Indiana we have an existing program in Blue Cross-Blue Shield, which gives comparable coverage at less cost,

NOW THEREFORE BE IT RESOLVED, That the physicians of Indiana continue to accept the indemnity schedule as full payment in needy and deserving cases,

AND BE IT FURTHER RESOLVED, That we pledge our services in providing the highest quality of medical care to all people regardless of their ability to pay.

The last two resolves were amended on four occasions, to read as follows:

THEREFORE BE IT RESOLVED That the physicians of Indiana be encouraged to accept the present standard indemnity schedule as full payment in needy and deserving cases as determined by the physician in charge,

AND BE IT FURTHER RESOLVED That we continue to pledge our services in providing the highest quality of medical care to all people regardless of their ability to pay.

After a lengthy discussion and this series of amendments, on a standing vote the resolution was not adopted.

Resolution No. 26

(As originally introduced by the Council, Oct. 24, 1961)

Subject: NON-INDEMNITY TYPE INSURANCE TO BE OFFERED BY BLUE SHIELD

RESOLVED, That the Indiana State Medical Association recommend and encourage Blue Shield to offer to the Public of Indiana, a payment plan for medical care, similar to Medicare, which plan will have no schedule of indemnities; but Blue Shield will pay the regular charges made by physicians in the areas in which the services are rendered, and that the County Medical Societies and the Indiana State Medical Association be urged to establish advisory committees for the purpose of assisting Blue Shield in developing such a plan, and generally assisting Blue Shield in the operation of the plan.

Resolution No. 26 was discussed by the chairman of the Commission on Medical Economics and Insurance, who offered a substitute resolution, as follows:

WHEREAS Indiana doctors have long been critical of the scope of benefits and the dollar allowances in existing Blue Shield indemnity schedules, and

WHEREAS General Motors is now under contract with Labor to furnish on a nationwide basis fringe benefit insurance programs with the scope of benefits provided in the service type plan known as Michigan M-75, and

WHEREAS Indiana is an indemnity plan state in which Blue Shield must meet or better the scope of benefits of the M-75 plan but not the mechanism of M-75, if it is to retain large industrial contracts,

NOW THEREFORE BE IT RESOLVED that the ISMA encourage Blue Shield to market a prepayment indemnity type plan for medical care, which plan will have no schedule of dollar allowances; but Blue Shield will pay the usual charges

made by physicians in the areas in which the services are rendered. These charges will be indicated on the regular Blue Shield claim forms submitted by physicians. County societies or regional groups of counties shall establish review committees responsible for reviewing, when necessary, unusual services or charges in the light of "the going rate" concept for that locality.

This resolution was discussed very openly and frankly and on standing vote was adopted by a large majority (73-36).

Following the three actions outlined above, the House was dissolved as a Committee of the Whole and convened as a House of Delegates, and by unanimous voice vote, adopted the above three actions.

The House adjourned, *sine die*, at 5:00 p.m., Sunday, March 11, 1962. ◄

Association News

EXECUTIVE COMMITTEE

March 10, 1962

Meeting called to order by Dr. Wendell E. Covalt, acting chairman, in the Conference Room, I. U. Student Union Building, at 6:00 p.m., March 10, 1962, with the following members present:

Wendell E. Covalt, M.D.; Harry R. Stimson, M.D.; Maurice E. Glock, M.D.; John M. Paris, M.D.; Irvin W. Wilkens, M.D.; James A. Waggener, executive secretary.

Frank B. Ramsey, M.D., editor of *THE JOURNAL;* Robert Hollowell, attorney.

Membership Report

Number of members as of December 31, 1961	4,338
1962 members as of February 28, 1962:	
Full dues paying	3,186
Residents and interns	131
Council remitted	26
Senior	361
Honorary	2
Military	39
Total 1962 members as of February 28, 1962	3,745
Number of members as of February 28, 1961	3,743
Gain over last year	2

Number of AMA members as of February 28, 1961	3,647
Total 1961 AMA members as of February 28, 1962	3,650
Gain over last year	3
1962 AMA members: Dues paying	3,078
Exempt but active	569
	3,647
Number who have paid state dues but not AMA dues for 1962	98

Building Matters

The secretary reported that the plastering in the new building had been completed with the exception of the boiler room, and the tile setters were at work, and the contractors had assured him that the building would be ready for occupancy not later than May 1.

Headquarters Office

The secretary reported that he had received financial assistance, enabling him to employ temporary help for the purpose of assisting in the educational campaign currently being conducted.

The matter of Eli Lilly and Company offering a cash payment to assist in the honorarium payments to speakers for the convention, in lieu of rental of exhibit space, was deferred until the next meeting of the Committee, on motion of Drs. Glock and Paris.

The secretary reported on the conflict which had developed in attempting to follow the recommendations of the Commission on Convention Arrangements, as approved by the Council, for beginning the 1962 meeting on Saturday. He reported that he had also discussed this matter with the members of the Commission on Convention Arrangements and they had recommended that the 1962 meeting follow the same pattern as past meetings in French Lick and that the meeting be started on Sunday rather than Saturday. This change was approved on motion of Drs. Paris and Glock.

Treasurer's Office

The treasurer reported on the Income and Expenses and Budget Balances as of February 28, 1962, and his report was approved by consent.

Legislative Matters

The secretary read a letter from Senator Hartke concerning the bill he has introduced calling for a crash program in research in the field of cancer, heart disease, and mental and nervous disorders. The secretary was instructed to write the senator, thanking him for his interest in these fields.

Organization Matters

The matter of travel insurance covering the committee and commission members of the Association, delegates, staff, etc., was discussed and upon motion of Drs. Paris and Glock the secretary was authorized to purchase a $50,000.00 policy from The Travelers Insurance Company and to include the $100.00 weekly indemnity for total disability. The premium on this policy is quoted at $602.00 per year.

The matter of payment of travel expenses of members of the Liaison Committee with the Blue Cross Plan was discussed and on motion of Drs. Glock and Paris the Committee authorized payment of the travel expenses of these representatives by the Association.

A letter from Mr. Saylor of the Blue Shield Plan, in which he transmitted the action of the Blue Shield Executive Committee, stating their willingness to underwrite and administer the proposed National Plan for persons over 65, was read for the information of the Committee. No action was taken.

A letter to the Saturday Evening Post, written by Dr. Lloyd L. Hill of Miami County, was referred to the Committee for its information.

The secretary reported he had received a check from the American Medical Education Foundation in the amount of $43,688.29, which had been endorsed by the University back to the Indiana Medical Education Foundation. The check had been sent to the Fletcher American National Bank, who is trustee of the Foundation funds, and Dr. J. W. Denny, chairman of the Trust Committee, who the Trust Committee had empowered to investigate how such funds should be invested, was out of the city. The recommendation was requested as to what should be done regarding the investment of this money in Indiana. By consent it was agreed that nothing should be done until Doctor Denny returns.

Resolutions from the American Medical Association regarding visitation by the various states to the headquarters of the AMA and the Museum of

Medical Progress were read for the information of the Committee. No action was taken.

A letter from the Indiana Association of Medical Assistants regarding the Association supplying certificates to girls completing training to become medical assistants was read, and upon motion of Drs. Glock and Paris, the Association is to prepare suitable certificates for this purpose.

A letter from the Indiana Youthpower Conference, requesting financial assistance and cooperation from the Indiana State Medical Association in conducting their annual meeting, was read, and upon motion of Drs. Paris and Glock a $25.00 appropriation was authorized.

The Committee was informed of the report which Dr. Earl W. Mericle had forwarded to the Association on his recent attendance at the Conference on Mental Health. The report was turned over to Dr. Paris for his review. Doctor Mericle was to be written, thanking him for filing such a report.

A letter was read from Dr. Glen Ward Lee requesting permission to appear before the Council for discussion of the mental health program and the use of exile physicians in state psychiatric institutions. The request was given to Dr. Paris for his reply.

Letter received from the Allen County Medical Society, together with a resolution which the society requested be placed on the agenda for the special meeting of the House of Delegates on March 11, was read and by consent the secretary was instructed to prepare a letter to this society over the signature of Dr. Stimson, president, telling the society that this matter should be presented to the House of Delegates at its October meeting.

The secretary read a letter from the American Medical Education Foundation concerning their plan for fund-raising in 1962.

A letter from the Indiana Jaycees requesting the cooperation of the Association in naming a physician to assist them in an advisory capacity in developing health programs for local Jaycee units was read, and on motion of Drs. Glock and Stimson, the request was approved and the president was requested to name such a representative.

Exchange of correspondence between the Indiana State Association of Medical Assistants and the Indiana Institute of Medical Assistants was reviewed for the information of the Committee, and Doctor Paris recommended that the Association inform the Indiana State Association of Medical Assistants that the State Medical Association is behind them, and the headquarters office staff is to be instructed to reply to any inquiries concerning the Indiana Institute of Medical Assistants with the information that the State Medical Association has not approved, does not sponsor, and does not recommend this school.

New Business

Upon motion of Drs. Paris and Glock the Executive Committee is to recommend to the Council that the Association re-examine its position with the Indiana Blue Shield Plan.

Doctor Paris read an article from a recent issue of *Medical Economics* concerning the apparent suppressing of a confidential survey on Blue Shield, and upon motion of Dr. Stimson, taken by consent, this matter is to be placed on the agenda for the April meeting of the Council.

Doctor Glock discussed certain drug practices which are evident in his area. On motion of Drs. Stimson and Glock it was agreed that the Executive Committee should meet with the Executive Committee of the Indiana Pharmaceutical Association at its June meeting to discuss these matters.

Future Meetings

Council of the Indiana State Medical Association, Sunday, April 29, 1962. This meeting is to be held in the new building if at all possible.

Arrangements for the trip to Washington on April 29 were approved by consent. Members of the Executive Committee, the field secretaries, the executive secretary and the administrative assistant are to attend.

Notice of a legal conference to be held in Chicago May 18 and 19, 1962, was read and by consent it was agreed that the attorneys should be sent at the expense of the Association.

Regional Conference on Aging, Charlotte, North Carolina, April 13-14, 1962. By consent it was agreed that no representative will be sent to this meeting.

Plans for Junior-Senior Day, to be held at the Columbia Club, Indianapolis, on March 24, 1962, were reviewed for the information of the Committee.

Eighth Regional Conference on The Future of Voluntary Health Insurance and Prepayment Plans, to be held in St. Louis, April 14-15, 1962. Upon motion of Drs. Stimson and Glock a representative from the Commission on Medical Economics and Insurance is to be sent to this meeting.

There being no further business the Committee adjourned to meet again on Saturday, April 28, 1962, at 6:00 p.m. ◄

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EDITORIAL AND ADVERTISING INFORMATION

All articles must be typewritten, double-spaced with margins of one inch.

Photographs should be printed on glossy paper. Negatives cannot be used.

Illustrations are desirable. Selection of illustrations submitted at discretion of editor and editorial board members. Cost of color illustrations must be shared by the author.

Contributors are responsible for all statements made in their articles. The editors and editorial board members may not be in agreement with all views expressed by authors, but it is desired to give all authors as great latitude as possible. However, the right is reserved to reduce in length or reject any article.

Articles are accepted for publication with the understanding that they are submitted for exclusive publication in THE JOURNAL of the Indiana State Medical Association.

Communications dealing with editorial matter should be sent to Frank B. Ramsey, M.D., Editor, 1802 North Illinois Street, Indianapolis 2, Indiana. All other communications should be sent to THE JOURNAL of the Indiana State Medical Association, 3935 N. Meridian, Indianapolis 8.

Advertising rates will be furnished on request. Copy must be received by the 5th of the month preceding month of issue. (Scientific manuscripts must be received at least two weeks earlier if geared for a specific issue.)

Entered as second class matter January 25, 1933, at the Postoffice at Indianapolis, Indiana. Copyright, 1962, by the Indiana State Medical Association. Published monthly at 3935 N. Meridian, Indianapolis 8.

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1 Ford, R. A. and Blanchard, K. Journal Lancet 78:185, 1958.

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This summary of what is happening in Washington is prepared by A.M.A.'s Capital office and air-mailed to *The Journal* on the ninth of each month preceding month of issue.

MONTH IN WASHINGTON

WASHINGTON, D. C.—Supporters of the King-Anderson bill stepped up their campaign as the House Ways and Means Committee neared a showdown vote on the legislation which would provide limited health care for the aged under social security.

The Kennedy Administration took over the leadership in the drive with the President accepting an invitation to address a rally in Madison Square Garden, New York City, on May 20 sponsored by the National Council of Senior Citizens for Health Care Through Social Security.

The Administration also was organizing citizens' committees in individual states to whip up grass roots pressure for the bill. The President was asking prominent persons, such as former Democratic Gov. and U.S. Sen. Edwin C. Johnson in Colorado, to head such committees.

After personally pledging their support to the legislation in a White House call on the President, 27 physicians formed The Physicians Committee for Health Care for the Aged Through Social Security headed by Dr. Caldwell B. Esselstyn of New York City, president of the Group Health Association of America. Most of the 27 are educators, hospital administrators or in other administrative posts. A majority are members of the AMA.

ALL-OUT EFFORT CALLED FOR AGAINST KING-ANDERSON BILL

Pointing out that the White House was able to muster only an insignificant number of doctors for the King-Anderson Bill, an AMA spokesman said at least 90% of the nation's 261,000 physicians are opposed to the legislation.

The intensified Administration drive made it imperative that physicians and other opponents of the Social Security approach go all-out at this time in their efforts against the King-Anderson bill.

A vote was expected in the Ways and Means Committee in May or June at the latest.

Sen. Robert S. Kerr (D., Okla.), reaffirmed his opposition to the King-Anderson bill but said he expected it would come up on the Senate floor for a vote. He said he and Rep. Wilbur D. Mills (D., Ark.), chairman of the Ways and Means Committee, were conferring on legislation that would expand the Kerr-Mills program—which has the wholehearted support of the AMA—to cover more aged persons.

Under the leadership of Rep. William E. Miller (R., N. Y.), who is also chairman of the Republican National Committee, some Republican Congressmen got behind the so-called Bow bill which would permit aged persons to reduce their federal income taxes by up to $125 a year to

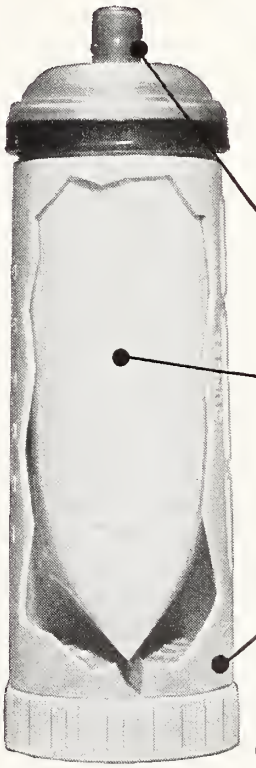
Continued

dramatically reduces spitting up and colic

To the members of the medical profession who recognize the advantages of breast feeding—here's a completely new concept in baby feeding that all doctors will welcome. The new Playtex Nurser. It features a soft, pre-sterilized inner bottle which is disposable, and a broad, non-collapsing nipple which produces a sucking action similar to that in breast feeding.

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Colicky infants, problem feeders and premature babies especially will benefit from the breast-like action of the new Playtex Nurser. The fact that the bottle is pre-sterilized and disposable will appeal to mothers who do not breast feed their babies. The fact that the Nurser does so closely simulate breast feeding will be similarly important to the health of any baby fed with it.



(Cut-out View)

"Nature's Way"

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Continued

cover health insurance premiums. The government also would issue to persons 65 years and older who pay no income taxes, or less than $125, a certificate with which to purchase health insurance.

P.H.S. GIVES FIVE GUIDELINES FOR POLIO IMMUNIZATION

The Public Health Service licensed Type III oral poliomyelitis vaccine but left the decision to local health officials and physicians as to whether the oral or the Salk killed vaccine, or both, would be used this year.

Types I and II oral polio vaccine had been licensed last year and Type III was the last of the series needed for protection against all three types of polio.

Production and availability of the oral vaccine will be a major factor in the extent of its use this year.

The PHS conclusion on local immunization programs was recommended by a special advisory committee to the Surgeon General and was in line with a policy adopted by the AMA House of Delegates at Denver, Colo., last November.

The PHS gave five guidelines for the local programs:—

1. Organizers of community drives must be assured that adequate supplies are available before such programs are undertaken.

2. All persons in those groups selected by the community should receive vaccine regardless of past polio immunization history.

3. In general, vaccination programs using either vaccine must have careful planning and achieve a maximum of support from official and voluntary health and medical groups.

4. The plans should assure the ready availability of the vaccine in all areas of the community and for all persons within the selected target groups. Special emphasis must be directed to those areas and population groups having the lowest levels of immunization. Community-wide programs should achieve the immunization of the maximum number of persons, but no less than 80% of the preschool children in all socioecomonic groups.

5. A continuing program of immunization of infants should be incorporated as an essential feature of all organized community-wide programs.

TWO EFFECTIVE WEAPONS AGAINST POLIO NOW IN FULL USE

The PHS also recommended that the three types of oral vaccines be administered sequentially, each in monovalent form at intervals of about six weeks.

Continued

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Continued

"Optimally," the PHS said, "large scale immunization campaigns with oral poliovirus vaccines should be conducted during the winter or spring months."

Dr. Luther L. Terry, Surgeon General of the PHS, termed the licensing of the Type III oral vaccine as "another major step toward the final conquest of paralytic poliomyelitis."

"Now, two effective weapons, the formaldehyde-inactivated vaccine and the oral vaccine, are available for general use," Dr. Terry said. "Their proper application should accelerate the decline in poliomyelitis and could lead to the early elimination of the disease."

The PHS called for emphasis this year on vaccination of the unimmunized and inadequately protected with one or the other of "these effective vaccines (or a combination so long as there is at least a complete series of either) and also to the initiation of as many well-organized community-wide programs as the supply of vaccines will permit."

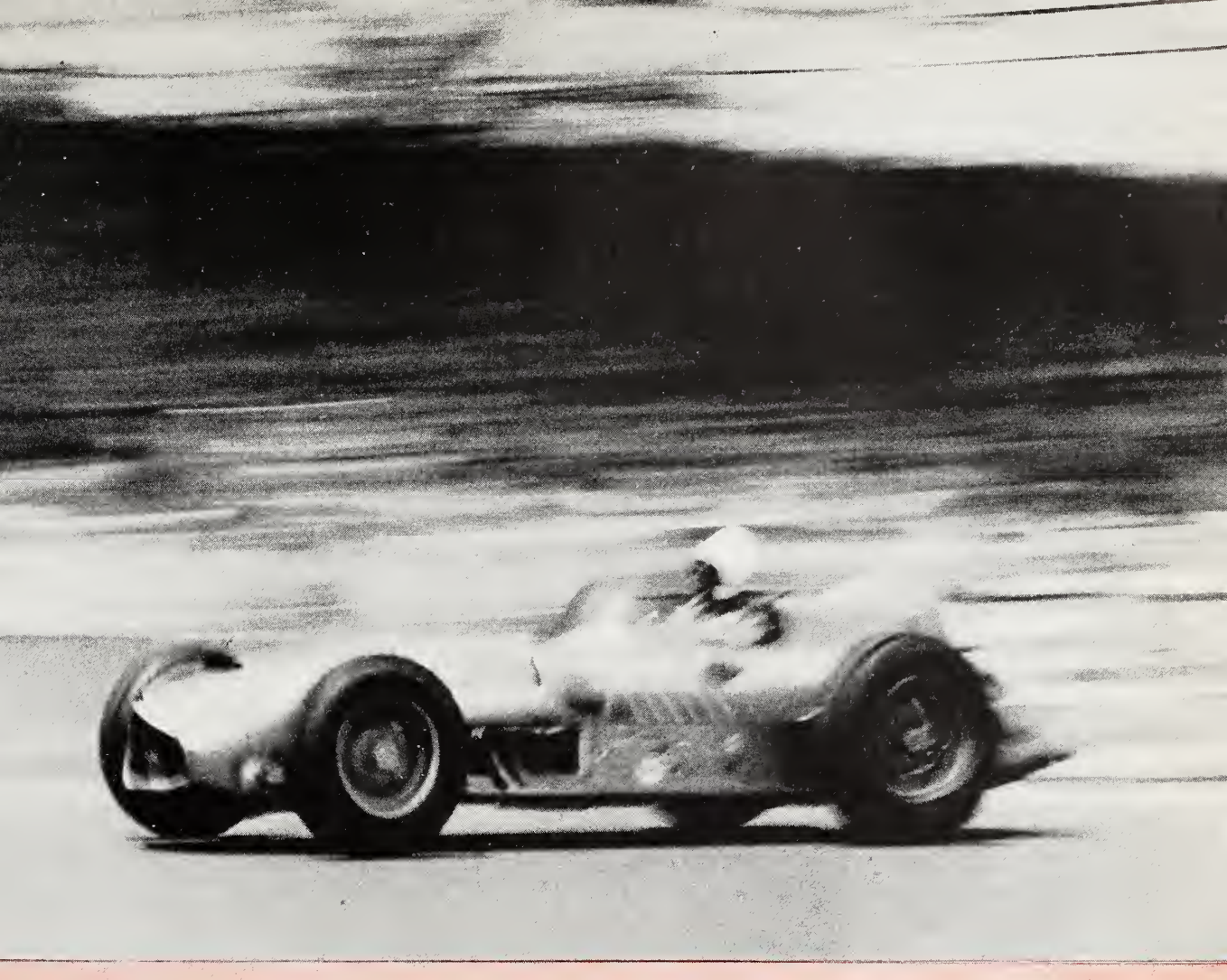
The PHS set four priorities in use of the polio vaccines:

1. Vaccination programs in areas threatened with epidemics. The PHS Communicable Disease Center at Atlanta, Ga., will keep on hand supplies of oral vaccine to meet this need.

2. Routine immunization of infants, starting when six weeks old and completed in 12 months.

3. Immunization of pre-school children.

4. Immunization of young adults and parents of young children. ◄



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LOOKS AT MEDICINE

This section of THE JOURNAL is devoted to the presentotion of opinions which oppeor on the editoriol poges of the public press, and which ore of interest to the medicol profession. Its function is to review comments which moy be favoroble or unfovoroble to medicine. Members ore invited to submit editorial clippings for this column.

Another Loss to Mourn

What's happened to the Saturday Evening Post some of my friends are asking?

What happened? The Post changed editors and in the process changed editorial complexion from the blended hues of Midwestern red, white and blue to the bloodshot pink of liberalism's fantasy world.

Kansas conservatives like myself, mourning the loss of a conservative senator, might mourn the more for loss of a conservative voice in the Great Saturday Evening Post. The Post was one of the last frontiers of conservatism in the big time journalistic field. It wielded a mighty influence. And now it is just another syrupy voice for the liberal left.

Post Editor Fuoss zeroed in on doctors and the American Medical Association last week. In typical liberal manner he wiped out argument by simply stating that no ground for argument exists. There aren't two sides, there is only our side, so say the liberals. He calls attention to the increase in malpractice suits, which makes me think it is too bad there isn't a legal recourse for editorial malpractice. The liberals could be sued right out of their socialistic pants.

The Fuoss editorial on the A.M.A. is a perfect example of the liberal attack. All the way through Fuoss beats words together in clamorous assertion of appreciation of the great contribution doctors have made, are making and will make to the world at large (far, far greater, be it confessed, than the Fuoss ilk ever did or ever will). With his love of the Dr. Kildares and semblance of fairness established he moves in for an operation of his own and with surgical skill proceeds to perform a bloody characterotomy on the medics and their national organization, the A.M.A.

He cites the doctors for having been opposed to everything, including medical insurance—no proof, and utterly unprovable because it is untrue. Then, with grand sweep, completely cutting away all vestige of historical fact, he remarks, "The doctors as a group have in essence been against almost everything that America is for." How "mal" in practice can you get, Mr. Fuoss, one wonders? This is the essence of what surely will be known later as the Great Smear Age.

I know four doctors here in my home town and have known many more over state and nation and I have never known a single one of whom it wouldn't be rank libel as well as gross untruth to state that he is against everything America is for. On the contrary, the men I know have been against the socialistic fungus that is trying to destroy America, and have been for the great glory of American individual initiative, independence, self-reliance, honesty in financial matters, personal and governmental; have been steadfast in faith that the climate of freedom holds assurance of higher living standards, more of security and needed medical attention for everyone than any other system on earth.

The Post editor shows that he is a disciple of that fastidious liberal practice of the great lie told in mild voice as if here is something so obvious no one needs shout about it. "So far as we know," says Fuoss, with tranquilizing calmness, "there is no serious support anywhere in America for anything resembling socialized medicine."

Oh, brother! How big can even a big lie be! Of course, Editor Fuoss goes on next

to assert that the mis-called Medicare bill is just a simple prescription of old fashioned Americanism to be taken regularly each morning before breakfast.

But enough said. Let's leave our doctors on the operating table, cut open from conviction to patriotism, from ideal to love of freedom. Mr. Fuoss has said he loves them, admires and respects them so surely he will see to it that only a few infected sponges and surgical instruments are left inside for festering before sewing up the gaping wounds he has inflicted.

We readers carry away with us the implanted suggestions that socialism is really Americanism of higher order, that regimentation with free medical service is "responsible statesmanship," and that all would be for the best in this best of all liberal worlds if the docs would start communizing their attitude and the A.M.A.

Heil, liberalism! — *Ellsworth (Kans.) Messenger*, Jan. 29, 1962.

Many People Know Little About Social Security System

To the Editor of The Star:

The letter, "Congressman's Question Unfair, Insists One Of Constituents," indicates the unfortunate fact that so many people know so little about the social security system.

He objects to a question of Representative Wilson, "Should social security taxes be raised again to provide compulsory medical care?," and the raising of social security taxes is exactly what it would do. The present social security taxes already are scheduled to rise 9 and a quarter percent by 1968 and remember that these taxes are paid by the consumer. True, the employer pays one-half but he can add it to the cost of his merchandise and that exactly is what he does.

This adds further to inflation. The other one-half is paid by the worker and do not forget that fact.

The total annual cost of this plan has been estimated to be from one and a half to two and a half billion at the start, and rising in later years to an annual cost of five billion dollars or more. Think how much tax this will add to both the employe and employer—many times the one-tenth of 1 percent that is suggested.

If medical care were added to the social security system, it would at least double the staff of that organization which already has some 32,000 employees and a veritable forest of electronic machines.

It would benefit eight or 10 people for every one that needs help. It would mean that these workingmen would have to dig up taxes to pay for payments to wealthy people over 65 years of age. Even now, there are between three and four million who are not eligible for social security and these are the needy ones in most cases.

It is reported that there are 17 million people over 65 years of age. This accounts for 9 percent of our population, but this 9 percent receives more than 8 percent of all personal incomes.

There is much more to this subject than appeared in Representative Wilson's question. It was a good question and should be answered especially after the people have honestly attempted to get the facts. I had the privilege of serving eight years with Mr. Wilson. It is fortunate that he continues to represent his district in such a frank and honest manner.—*Indianapolis Star*, March 13, 1962.

John V. Beamer
Wabash, Ind.

Let's Test Present Medical Care Program

A spokesman for the American Medical Association, in an Evansville attack on the Administration's plan for medical care of the aged, says the present Federal program hasn't been adequately tested.

This certainly appears to be the case in Indiana, and it's time we did something about it.

At present, Indiana is not using the most widely publicized feature of the Kerr-Mills medical care plan, passed by Congress in 1960. We do have our own program, financed with Federal aid, but it's limited in scope.

What happened was this: The Federal law passed in 1960 provided two distinct

programs for medical care for the aged. One liberalized benefits available under the present public welfare program. The other allowed states to pay medical costs of persons whose resources were too great to allow them to qualify for public assistance, but were still medically needy. The definition of need was to be set up by the states, and could vary from state to state.

To garner Southern votes, the percentage of Federal aid in the second program was weighted heavily in favor of low-income states. Indiana's share was only 50-50, while the share under the public welfare program was considerably higher.

Consequently, the General Assembly chose to liberalize the public welfare program, rather than adopt the completely new plan.

In practice, the Indiana approach has proved rather rigid. It has not, for example, caused any marked decrease in medical relief payments in Pigeon Township, which includes much of Evansville. Those payments were still well above $25,000 last month.

No criticism of the last General Assembly need be implied. The law was an experiment. It was proper to begin cautiously.

Early experience indicates, though, that further liberalization is needed. The legislators ought to determine whether this can be done by further changes in the State's public welfare laws, or whether the entire Kerr-Mills approach advocated by the American Medical Association should be adopted.

The present Federal law is based on the concept that elderly persons who need medical aid should receive it. The alternate is an Administration plan to provide some medical aid for all persons over 65. It's an approach that will either be fantastically expensive or will permit only incomplete coverage.

Before we give serious thought to such a radical course, we should make every effort to make the present Federal law work to the best advantage of Indiana's senior citizens.—*Evansville Courier,* March 26, 1962.

AMA Aid to Train Medics

One of the chief problems the nation faces in producing an adequate number of professional graduates is the cost of higher education. A good many qualified students drop out each year, or never start to college, because of finances.

Headway is being made in an attack on this problem, by private individuals and organizations, and by government, through both scholarships and loan funds. The newest action is one just announced by the American Medical Association.

The association's program is impressive. It should be, of course, if it is to be of real value for it is generally recognized that the cost of a medical education rates at about the top among the professions.

The loan plan will be handled by the AMA Education and Research Foundation. It will aid students at any stage of their medical education, from the first year of medical school through residency and interneship training.

At the start, the loans will be made through a leading Chicago bank but other banks may be used as the program develops. The loans will be guaranteed by the AMA foundation. Guarantee funds will be sought from physicians and other private sources. One pharmaceutical firm already has pledged to match the first $100,000 contributed by physicians.

Under the plan, a student may borrow up to $1,500 in any year and up to $10,000 in a seven-year period, but may not be indebted for more than $15,000 from all sources.

Students will not start repayment on loans until five months after they have finished training. There are various repayment methods; on larger loans, a 10-year plan is provided with small initial payments progressively increasing during the period. As repayments begin, money will be available for new loans and the plan eventually will be self-supporting.

The AMA has been the target for criticism from time to time. Its institution of the loan fund should bring it some strong commendations. There is a need for more physicians and surgeons; the cost of a medi-



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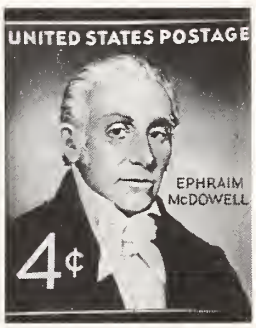
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cal education has been a major factor in holding down the number of persons who are trained. But neither the medical profession nor the general public wants the training cheapened. The better answer to the problem is to assist more students in financing their training, and the AMA program recognizes that the profession bears some responsibility for doing so.—*Gary Post Tribune*, Feb. 18, 1962. ◄

About Our Cover

In Danville, Kentucky, Christmas Day 1809 was a day somewhat lacking the customary festivities for two people—Dr. Ephraim McDowell and Jane Todd Crawford.

Ephraim McDowell was born in Virginia in 1771; during his twelfth year the family moved to Kentucky, at that time a part of Virginia. In 1792 he went for three years to the University of Edinburgh in Scotland, where he matriculated but did not complete the requirements for a medical degree. Indeed, it was not until 1825 that he was granted the honorary degree of M.D. from the University of Maryland, although he had for many years been acknowledged the leading surgeon west of the Allegheny Mountains.



In 1809, Jane Todd Crawford of Greentown, aged 45 and the mother of five children, was judged pregnant; the two physicians attending her had requested the aid of Dr. McDowell in delivering her of anticipated twins. Dr. McDowell's findings are described in a letter he wrote eight years later. ". . . Upon examination, per vaginam, I found nothing in the uterus; which induced the conclusion that it must be an enlarged ovarium. . . ." Mrs. Crawford, fully aware that surgical treatment would probably be fatal, agreed to journey to Danville so that Dr. McDowell might attempt to excise the tumor.

The patient traveled the 60 miles on horseback, and after several days of rest, the operation was performed—surgery lasting 25 minutes, without the aid of anesthesia, resulting in the successful removal of a tumor weighing 20 pounds. The wound was closed with interrupted sutures with strips of adhesive plaster between every second stitch.

Dr. McDowell's letter continues ". . . In five days I visited her, and much to my astonishment found her engaged in making up her bed. I gave her particular caution for the future; and in twenty-five days, she returned home as she came, in good health, which she continues to enjoy. . . ."

Jane Todd Crawford died at 78 years of age, 33 years after the performance of Dr. McDowell's history-making operation.

Two further cases, both eminently successful, were treated by Ephraim McDowell before he made his first public report, "Three Cases of Extirpation of Diseased Ovaria," published in the Electic Repertory, and Analytical Review, Medical and Philosophical, (Philadelphia), VII (April, 1817), 242-244.

Dr. McDowell was honored in the series of Great Americans postage stamps; the stamp shown here was issued December 3, 1959.

The McDowell House and Apothecary Shop are now the property of the Kentucky State Medical Association and with the aid of the Woman's Auxiliary, the home has been refurnished with authentic period furniture. Many of Dr. McDowell's personal papers and belongings have been recovered and installed in their original positions.

The Journal would like to express gratitude to Mr. George W. Grider, Curator, McDowell House and Apothecary Shop, and to Mr. Jack Coleman, photographer, for their cooperation in making this month's cover available to us. M.E.R.

The Journal of the INDIANA STATE MEDICAL ASSOCIATION

Supervised by THE COUNCIL

Volume 55 — May 1962 — Number 5

Maternal Mortality Associated with Cardiac Disease*

CHARLES ECHT, M.D.
C. F. GILLESPIE, M.D.
C. P. HUBER, M.D.
Indianapolis

ON A RECENT REVIEW of maternal mortality in this state, presented during one committee meeting, it was observed that of 12 cases, four were complicated by cardiovascular disease. The purpose of this paper is to analyze the management which might have led to a more favorable outcome, had the proper conditions (social, economic, emotional, doctor-patient relationship) existed. With these cases in mind, physicians handling obstetric problems will be more alert to possible difficulty in the patient who gives a history of cardiac disease.

Case #1

The patient was a 26-year-old white female pregnant for the fourth time. She had had rheumatic fever at age 12 and was also an epileptic with convulsions occurring only during pregnancy. The time of her last menses was unknown. She first visited her physician's office on August 14, 1959 at about 12 weeks gestation, because of a convulsion the night before. The patient was extremely nervous and embarrassed and her husband did all the talking. Because of this the physician did not examine her, but asked her to return on August 19 for a physical examination. At this time a systolic heart murmur was heard, but no other abnormalties were detected. Dilantin and phenobarbital were prescribed. A pelvic examination was not done.

EKG Reveals Myocarditis

The patient was not seen again until October 15 when her husband called, stating that she was severely ill with shortness of breath and had been coughing blood during the past 36-48 hours. The patient was sitting up in bed, extremely dyspneic and apprehensive. She was coughing severely, had a rectal temperature of 102° and was cyanotic with both lungs full of rhonci and fine rales. Admitted to the hospital, she was treated with oxygen, Durycin, Equanil, low salt diet, Demerol, Dilantin and Crystodigin. A chest x-ray was suggestive of congestive heart failure. There was questionable improvement and medical consultation was obtained on the third day of hospitalization.

An apical systolic and diastolic murmur was heard, but the tachycardia (pulse 150)

* A report from the Maternal Mortality Study Committee of the Indiana State Medical Association.

made exact characterization difficult. Mercuhydrin and Cedilanid were started. An EKG revealed definite myocarditis. There was no growth from three separate blood cultures. An obstetrical consultant felt that that this was a medical and not an obstetrical problem and that termination of the pregnancy would be more detrimental than beneficial to the patient. Her condition failed to improve and she died soon after a convulsion on the fifth hospital day.

Results of Autopsy

1. Marked mitral stenosis—lumen admitted only index finger.
2. Dilatation of left ventricle.
3. Extensive pulmonary edema and chronic passive congestion of lungs.
4. Enlargement of liver and spleen.
5. Intrauterine pregnancy—female—age around 6 months, normal fetus.
6. Brain not examined (epilepsy clinically).

Comment

Certainly, any patient who consults her physician for verification of pregnancy requires a pelvic examination. The fact that this patient was pregnant, had a history of rheumatic fever and epilepsy, and had a systolic murmur would have been enough evidence to warrant a medical consultation after her *first* visit to the doctor. At this time, a more thorough evaluation of the patient's cardiac status would have been made. She would have been scheduled for frequent visits to her obstetrician and internist and probably would have been placed on prophylactic antibiotics.[2] The treatment of this patient at the critical period appeared to be satisfactory, but prophylaxis of this episode was the lacking factor.

Case #2

The patient was a 37-year-old white female who had had a heart murmur since birth. There had been two mild episodes of heart failure, the first being 10 years previously and she had been able to do her housework since without medication. Her first three pregnancies were delivered at term in 1952, 1954, 1955, and labor was described as easy with no complications. The birth weight of the children was not recorded on the physician's report.

Her last menses began March 29, 1959, and her first prenatal visit was on July 1. Physical examination revealed a prominent systolic murmur along the left sternal border, widely transmitted. The lungs were clear and there were no signs or symptoms of congestive failure. A therapeutic abortion and sterilization were discussed and the patient refused both. Her pregnancy progressed uneventfully until November 6 (32 weeks) when mild decompensation began with dyspnea and 1 plus edema of the feet and ankles. Digitoxin, 0.4 mgm., was given and the patient was instructed to remain in bed on a low salt diet. House calls were made on November 7 and November 10. The patient appeared improved upon each visit, and 0.1 mgm. Digitoxin was given daily. The husband called the physician on November 16, stating the patient was worse and possibly starting into labor.

Marked Edema and Cyanosis

She was admitted to the hospital at 4:30 P.M. and seen by a medical consultant. There was marked shortness of breath, cyanosis of the lips, nail beds, hands and feet, 4 plus pretibial and ankle edema, 3 plus sacral edema, and the liver edge was 4-5 fingers below the right costal margin. The heart was enlarged to within 1 cm. of the anterior axillary line with a loud systolic blowing murmur along the left sternal border and a diastolic rumble in the fifth interspace in the midclavicular line. She was given Thiomerin, 1.5 cc., Lanoxin, 0.5 mgm., oxygen and was placed in Fowler's position.

Her hemoglobin was 15 gms., white blood count 18,000, NPN 69.5 mgm. %, CO_2 38 vols. %, Urea N 63.2. A blood culture produced no growth in three weeks. A P-A x-ray of the chest revealed a marked increase in the pulmonary vasculature with considerable increase in hilar shadows. The heart was moderately enlarged with marked prominence of the pulmonary conus segment. The radiologist's impression was a

cardiac abnormality possibly an Eisenmenger complex, patent ductus arteriosus, or mitral stenosis. A cardiogram revealed right ventricular enlargment with likely early muscular strain.

Autopsy not Performed

At 2:00 A.M., on November 17, 10 hours after hospitalization, uterine contractions were occurring every four minutes and the cervix was 2 cm. dilated. She was transferred to the labor section in critical condition and was delivered by midforceps at 4:55 A.M. when respiration ceased. An autopsy examination was refused. The infant was a premature male whose weight was not recorded. Although the child breathed and cried spontaneously, it died of atelectasis 18 hours after delivery.

Comment

The main criticism of this case is the lack of a high index of suspicion in a patient who has had a loud murmur since birth. The physician was aware of the possibility of complications for he offered this patient a therapeutic abortion. However, when she refused, an immediate cardiac consultation was indicated. Since the maximum cardiac load exists from the 28th to the 36th week, strict limitation of activity would have been indicated at this time.[1] Elective hospitalization may be indicated if the patient's cardiac status or previous history warrants it. At this time, baseline blood pressures, circulation times and EKG's can be taken, along with the close observation of the patient's weight, discomfort and dyspnea.

When this patient became decompensated, hospitalization was indicated immediately. The medical consultation on November 16 was 6 months late.

Whether the delivery of this infant with midforceps at 4:55 A.M. contributed to this patient's demise cannot be evaluated. No mention is made of the condition of the patient herself or the cervix. Perhaps either or both indicated delivery in an attempt to salvage the baby. Generally speaking, however, in most obstetric crises complicated by acute severe congestive heart failure, the failure should be the primary object of treatment.

Case #3

The patient was a 23-year-old white female who had one living child and was pregnant for the sixth time. Her last menses began June 22, 1959, and her first prenatal visit was October 4, 1959, at which time no abnormalties were detected. She was seen in the office on October 20, complaining of an upper respiratory infection. Therapy consisted of intramuscular penicillin and oral Chloromycetin. Prompt improvement followed and the Chloromycetin was discontinued after she was afebrile for five days. The patient became febrile again on October 28 and responded to Combiotic and Chloromycetin, but developed an intermittent spasmodic non-productive cough which was occasionally blood-tinged. Examination on October 31, revealed bilateral fine basal rales. She felt well except for the coughing and Chloromycetin was continued. The physician was called to the patient's home on November 3 because her coughing was much more severe.

Examination revealed her to be acutely ill with a temperature of 100.6° She was dyspneic, cyanotic and "racked with coughing." There was bilateral dullness with fine rales throughout both lung fields, the coughing was productive of a sanguineous material. Admitted to the hospital, she was treated with oxygen, Aminophyllin, Crystodigin, morphine, and antibiotics. A chest x-ray revealed the cardiac outline largely obliterated by an extensive infiltrative process involving the right upper and lower lobes and the left lower lobe which had the appearance of interstitial pneumonitis. The patient died approximately seven hours after being admitted. A culture of the sputum revealed staphylococcus which was coagulase negative and did not ferment mannite.

Results of Autopsy

1. Bilateral extensive pneumonia, lobar type.
2. Mitral stenosis, mild to moderate, secondary to old rheumatic endocarditis.
3. Verrucal endocarditis of mitral and aortic valves.
4. Gravid uterus, male infant with small, recessed lower jaw.

5. Lungs wt.—right 1140 gm., left 1050 gm. Both lungs virtually non-functioning at time of death.

Comment

This case represents one of a fulminating bacterial endocarditis. Perhaps the outcome may have been the same had the proper prophylactic measures been taken. However, after this patient's respiratory symptoms did not respond to treatment on October 28, a chest film and medical consultation were indicated. On October 31, (after 9 days of these episodes), one's suspicion of a problem greater than pneumonia should have been aroused. Once again, the hospitalization and consultation were not hours, but months too late.

Case #4

This patient was a 24-year-old, married white female, para IV, gravida V.

Past obstetric history revealed that the patient had full term normal deliveries without complications in 1956 and 1958. In 1958 she also had an early abortion, for which a dilatation and curettage was performed. No complications resulted.

The past non-obstetric history was negative except that a routine P.A. x-ray of the chest on December 27, 1958 revealed widespread bronchiectasis throughout both lungs with patchy areas of pneumonitis. A diagnosis of heart disease was not made before the present illness.

Present Illness and Prenatal Course

In January of 1959, the patient first noticed hemoptysis. She sought medical consultation on January 11. A routine P.A. x-ray of the chest was considered normal. January 28, fluoroscopic examination was performed. Enlargement of the left atrium was noted that was suggestive of mitral insufficiency. She was admitted to the hospital and cardiovascular consultation obtained. A diagnosis of inactive rheumatic heart disease with mitral stenosis was made. Her last menstrual period began on November 13, 1958. A diagnosis of pregnancy was entertained, however, a pelvic examination was not performed. A frog test and a Friedman test were both negative on January 28, 1959.

Cardiac surgery was recommended and on February 15, 1959, a mitral valvulotomy was performed. Again, no pelvic examination was reported prior to surgery. The immediate postoperative course was uneventful. On February 24, she was released from the hospital. She was released on Crystidigin, vitamins, Pronemia and A.S.A. Compound. She was instructed to limit her activity. Antibiotics were to be taken p.r.n. rather than prophylactically.

The patient was well until March 4, 1959. At this time she complained of tiredness, shortness of breath, and had a temperature of 100.6°. She was seen by her local doctor. At this time she was taking Chloromycetin tablets. No other specific treatment was recommended. On March 5, her local doctor made a house call. At this time her temperature was 104°. Her condition remained essentially the same. She was continued on Chloromycetin. On March 8, blood cultures were drawn and petechiae were noted beneath the nail beds. A tentative diagnosis of subacute bacterial endocarditis was made.

Fetus Aborted

On March 9, the patient was admitted to the hospital. Shortly after her admission to the hospital, she spontaneously aborted a fetus that appeared to be less than four months in size. This was not considered to be a septic abortion. She continued to spike temperatures to 105° and her condition was considered critical. Supportive therapy consisted of Declomycin, 150 mgm., every six hours, Chloromycetin, 500 mgm., intravenous Vancomycin, Crystidigin, Aristocort, Streptomycin, oxygen. Consultation was obtained and agreement was met as to the foregoing supportive care. The patient's condition continued to deteriorate and she died in a state of circulatory collapse at 7:30 P.M. on March 11, 1959.

Laboratory findings of March 9 showed white blood count 10,000, 54 stab, 38 seg., 6 lymphs, 2 monocytes; hemoglobin 71.6%, 11.1 grams, hematocrit reading 37%. Blood culture drawn on March 8 and reported on March 11 revealed gram positive cocci, coagulase positive, sensitivity tests were

made. On March 10, Sed. rate 1 MM. per hour. On March 11, C-reactive protein 4 plus; urinalysis, specific gravity 1.021; sugar negative; white blood count 2-4; RBC 50-55, albumin 1 plus, bacteria many. Catheterized urine specimen for occult blood was positive. Antistreptolysin Titer 166 Todd units. Heterophile antibody positive 1-7, and 1-14 dilution. Agglutination test negative for typhoid "O" and "H." Blood culture organism hemolytic staphylococcus coagulase positive. Sensitivities revealed the organism to be sensitive to Chloromycetin, Neomycin, penicillin, Vancomycin, Furacin, Furadantin and Albamycin. The organism was resistant to Aureomycin, Streptomycin, Erythromycin, Terramycin, Tetrocycline, Gantrisin, Ilosone and Sulfadiazine.

A chest film revealed increased vascularity in keeping with mild to moderate congestion. An EKG revealed abnormally depressed ST segments reflective of injury to the anterior myocardium. Tall P waves suggested auricular hypertrophy. Non-specific ST changes suggested left ventricular hypertrophy.

On March 25, the Indiana State Board of Health reported that they were unable to Phage type the hemolytic staph aureus cultures from blood drawn on March 8.

Results of Autopsy

An autopsy was obtained. Final gross diagnosis included:

1. Acute plumonary edema.
2. Staphylococcal septicemia with infarctions of the spleen and kidneys.
3. Bacterial endocarditis of mitral valve. (Probably subacute bacterial endocarditis.)
4. Rheumatic heart disease, mitral valve, inactive.
5. Condition, postoperative, recent mitral valvulotomy.
6. Condition, recent, spontaneous abortion.
7. Acute congestion of spleen and liver.
8. Chronic pyelonephritis, slight. Gross inspection of the uterus on sectioning showed that the surface contained a ragged red-brown material. No cultures were taken at the time of the autopsy.

Comment

This last case is again one where the proper precautions may not have made any difference in the outcome of the patient. However, certain points seem obvious. Even though a negative frog test is obtained, a pregnancy could not have been ruled out. As was stated above, prophylactic antibiotics are deemed necessary in patients with rheumatic valvular disease. Certainly, in a patient with this history plus mitral valve surgery, antibiotics are indicated. In this case, the patient was instructed to take the medication "as needed."

On March 4, when the first sign of difficulty was observed the patient should have been hospitalized. Home treatment should definitely have been discontinued on March 5. The management of this patient following her admission was satisfactory. (Pregnancy per se is not a contraindication for a mitral valvulotomy, however, the surgeon should have been aware of the patient's status at the time of surgery.)

Conclusion

It is very easy for the authors to prepare this critique retrospectively. We fully realize that other existing factors enter into the management of any case. However, since cardiac disease is a very important complication of pregnancy, we are making a plea to all physicians handling obstetric patients to:

1. Have a very high index of suspicion in any patient who gives a positive history or who shows signs of cardiovascular disease.
2. Obtain early medical consultation.
3. Hospitalize patients with minimal indications.
4. Utilize extremely close observation at 28-32 weeks gestation, in the hospital if necessary. ◄

REFERENCES

1. Burwell & Metcalf: *Heart Disease and Pregnancy*, 1958.
2. Cecil: *Textbook of Medicine*, p. 159, 1959.
3. Rammelkamp, Wannamaker, Denny: *Bull. N. Y. Acad. of Med.*, 28:321, 1952.

Single-Dose Therapy in Enterobiasis: Evaluation Of a New Piperazine Preparation

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WITH THE INTRODUCTION of piperazine some seven years ago, the treatment of enterobiasis experienced a rapid and most welcome change. Gentian violet was displaced as the drug of choice in pin worm therapy with a speed unusual even in this period of bewildering change in medicine as elsewhere. In the light of the marked efficacy of piperazine, and the sharp reduction in toxicity as compared with gentian violet, this is understandable. The new drug proved to be an enormous relief for patient and physician alike.[1,2]

Piperazine therapy, however, has one major drawback—the fact that it requires a seven-day program of treatment. Since pinworm infestation is most common in small children, and since infestation of one member of a family or pediatric institution frequently results in infestation of the entire family or a substantial section of the institution's population, this extended regimen is often difficult to manage. Following the advent of piperazine, therefore, efforts have been directed toward development of therapy employing a more simplified dosage regimen, with an effective single-dose treatment as the ultimate goal. Because of the efficacy of piperazine and the relative lack of side effects, some of these efforts have been directed at using this chemical agent in such a simplified program.

Single Dose Therapy

As a result of these efforts, a preparation has recently been reported combining the vermifugal effects of piperazine phosphate with the peristaltogenic effects of a standardized, purified senna derivative (Senokot).[3] Piperazine reportedly acts by narcotizing the nematode which lodges on the wall of the intestinal tract.[4] With narcotization the worm's hold on the mucosa is loosened, and the vigorous peristaltic action induced by the senna eliminates it from the gastrointestinal tract before it can recover.

The preparation has proved successful in a number of clinical studies.[5-9] We originally obtained effective results in a preliminary screening test—27 apparent cures out of 30 cases of positive enterobiasis diagnosis, or a cure rate of 90%, with a single dose. A criterion of three negative post-treatment perianal Scotch-tape swabs was applied in this screening test. The present study represents a more rigid clinical evaluation of the preparation.

Methods and Materials

A routine series of 32 patients with positive diagnosis of enterobiasis, as determined by the usual Scotch-tape perianal swab technic, were treated with the piperazine-senna preparation. Patients included: one family of parents and eight children; one family of parents and three children; one family of parents and two children; one of three children only; three families of two children each only; and four individual children. There were, therefore, six adults and 26 children. The children ranged in age from two years to 14 years; five were less than three years old, eleven were between three and seven years, and ten were older than seven. Fourteen of the children were female and 12 were male.

In 17 out of the 32 patients, there were overt physical symptoms of pinworm infestation, including pruritis ani, excoriation of the anal area, lichenification, and actual visualization of the worm. In the other 15

cases, all members of families in which the overt symptoms occurred, anal swabs revealed infestation.

Dosage by Age and Weight

In the main, children under three years received one vial, equivalent to a teaspoonful, of the preparation; those between three and seven received two vials; and those over seven years received three vials. Some distinctions were made, however, where there was an obvious, gross variation in weight. Thus, four adults who were large received four vials, and the other two received three vials. Similarly, one unusually large two-year-old child received two vials, instead of one. A vial consisted of 2.6 gm. of the preparation, containing 1 gm. of piperazine phosphate and the senna equivalent of 7.5 mg. of sennosides A and B. Thus, the age group up to three years received 1 gm. of piperazine phosphate, the group from three to seven years 2 gm., etc. In the main, the palatable granules were ingested in the morning, most children taking them in chocolate milk or sprinkled on cereal. Adults swallowed them without a food vehicle.

Pre-treatment swabs were all taken in the office. Post-treatment swabs were taken by parents in the home, according to careful instructions given verbally and on an instruction sheet. These were taken on the 7th, 9th, 11th, 13th and 17th days after treatment. Each family was given a set of slides, labelled for the appropriate days, for each member treated. Parents were told to take swabs in the morning, prior to anal washing, and were instructed on the technic. All slides were examined with the aid of a drop of toluene to clear the field of debris.

The criterion for cure required that all swabs be negative.

Results

In 31 out of the 32 patients involved in this study, all slides were negative. In one patient, a 14-year-old girl, the result was curious in that a single ovum was found on the slide taken the 11th post-treatment day; all other slides including the two taken on the 13th and 17th days, were negative. While as a practical matter the pinworm was in fact eradicated in this case and no other therapy needed, a rigid adherence to the criterion established for the study would require that this case be adjudged a failure. The cure rate for a single dose of the medication under study was thus 31 out of 32, or 97%, which is comparable to the cited studies.

There were no reports of drug intolerance nor of any side effects whatever. This is in contrast to the earlier screening study in which larger dosages were employed and some gastric disturbances were noted, especially among children in the youngest age group.

In the main, physical symptoms disappeared rapidly with the elimination of the worm. In a few cases, topical ointments were used for treatment of severe excoriation of the perianal skin.

Comment

It would appear, from this study, that the goal of a safe, effective, single-dose piperazine-senna preparation for enterobiasis therapy has been attained. The cure rate achieved compares favorably with that generally obtained with the customary seven-day piperazine regime, and side effects are either absent or minimal. Interestingly, the total amount of piperazine ingested in a single dose of the preparation under study is considerably less than the total employed in multidose piperazine therapy. Where this study used from 1 to 3 gm. of piperazine for all children, the seven-day treatment with piperazine alone employs a minimum of 7 gm. for even a 50-lb. child. In the case of adults, the discrepancy is even more striking. Where the new preparation used no more than 4 gm. on any patient, a 150-lb. adult will ingest almost 25 gm. of piperazine during the seven-day period. Whatever toxicity hazard does exist with piperazine therapy, and it is admittedly minimal, it is obviously reduced with the sharply-decreased amount of the drug utilized in single-dose administration

Reinfection Prevention Being Studied

More important, the simplified regimen makes more feasible large-scale use of piperazine as prophylaxis in institutions and families where infestation exists or repre-

sents a potential hazard. Periodic cleansing of the worms becomes possible, and the elimination of enterobiasis as a public health problem may well become a reality in the near future.

Essential to this desired goal, however, is greater emphasis on the development of scrupulous hygienic programs designed to prevent the spread of infection and reinfection. The classic observations of Nolan and Reardon,[10] who recovered ova of *E. vermicularis* from dust in all rooms of homes inhabited by infected individuals, suggest that even respiratory tract is a common mechanism in contamination. Failure to give adequate consideration to this and other such environmental factors can even obstruct the proper evaluation of an anthelmintic. The problem of a hygienic program to prevent reinfection thus requires further study; such a study is now in progress.

Summary and Conclusions

1. A routine series of 32 patients with a positive diagnosis of enterobiasis was treated with a single dose of a new preparation combining piperazine and a purified, standardized senna extract.* There was unquestioned eradication of the pinworm in 31 of the 32 patients, or a certain cure rate of 97%. In the 32nd patient, a single ovum was observed on the third of five perianal Scotch-tape swabs. There was no other evidence of infestation and no further treatment was adjudged necessary in this case.
2. With the dosages used, there were no side effects observed or reported. It was readily accepted by all patients.
3. The study suggested that the goal of a safe, effective single-dose treatment for enterobiasis has been attained, and that large-scale prophylaxis for the eradication of pinworm is now feasible. ◄

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* Pripsen®, made available by the Medical Department of the Purdue Frederick Company, New York, N. Y.

REFERENCES

1. Bumbalo, T. S.; Plummer, L. J.; Warner, J. R.: The Treatment of Enterobiasis in Children, *Am. J. Trop. Med.*, 7:212, Mar., 1958.
2. Brown, H. W.; Chan, K. F.; Hussey, K. L.: Treatment of Enterobiasis and Ascariasis with Piperazine, *J.A.M.A.*, 161:515, June 9, 1956.
3. Burgess, D. E.: The Treatment of Constipation, *Pharm. J.*, 181:337, Nov. 1, 1958.
4. Standen, O. D.: Activity of Piperazine, *in vitro*, Against A. lumbricoides, *Brit. Med. J.*, 2:20, July 2, 1955.
5. White, R. H. R.; Scopes, J. W.: A Single Dose Treatment of Threadworms in Children, *Lancet*. 1:256, Jan. 30, 1960.
6. London, S. J.: A New Single-Dose Preparation for the Treatment of Enterobiasis (Preliminary Report), *Curr. Ther. Res.* 3:276, June, 1961.
7. Dubow, E.: Enterobiasis, Scientific Exhibit at the spring meeting of the American Academy of Pediatrics, Washington, D. C., April 10-12, 1961.
8. Bumbalo, T. S.: A Single-Dose Regimen in the Treatment of Pinworm Infection, Submitted for Publication.
9. Eidal, R. A., et al.: Observations on a Single-Dose Piperazine Preparation for the Treatment of Enterobiasis, Submitted for Publication.
10. Nolan, M. O.; Reardon, L.: Studies on Oxyuriasis, XX; Distribution of Ova of Enterobius vermicularis in Household Dust, *J. Parasitology*, 25:173, April, 1939.

Intestinal Obstruction in the Newborn*

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INTESTINAL OBSTRUCTION which occurs in the early hours after birth generally is produced by some type of congenital malformation. Atresia of the intestinal tract is the commonest cause of intestinal obstruction in this age group. The atresia may occur in the duodenum, in the jejuno-ileum, in the colon, or in the ano-rectal area. Obstruction also may be produced by plugging of the lumen of the bowel with abnormally tenacious meconium as in meconium ileus or by functional disturbances in bowel motility and innervation as in Hirschsprung's disease (aganglionosis). External compression and obstruction of the intestinal lumen is involved in annular pancreas, midgut volvulus and internal hernia. An additional factor of arterial insufficiency and ischemia may be involved in midgut volvulus through torsion on the vascular pedicle. Other pediatric intestinal disorders, such as duplication of the intestines, intussusception and omphalomesenteric duct malformations, rarely cause intestinal obstruction in the early hours of life.

Prompt Diagnosis, Early Treatment

The diagnosis is suggested from the findings on physical examination and from examination of the flat roentgenograms of the abdomen. The greatest amount of information is to be obtained from the flat roentgenograms and the appearance of the intestinal gas pattern. In some cases, a neonatal barium enema may provide additional useful information.

Significant maternal abdominal enlargement during the last month of pregnancy and the occurrence of polyhydramnios may lead one to anticipate the presence of congenital intestinal obstruction in the soon-to-be-born fetus. Prompt diagnosis and early and effective surgical intervention are of the greatest importance in the management. The frequent occurrence of multiple congenital malformations always should be borne in mind in caring for these infants.

The principle causes of intestinal obstruction in the newborn will be discussed briefly in the order of their anatomic location; beginning with the duodenum and passing through the intestinal tract to the ano-rectal area. In a few instances, the clinical problems will be illustrated with reports of representative cases operated upon by the author at the Ball Memorial Hospital in Muncie.

Duodenal Stenosis and Atresia

Intrinsic duodenal obstruction from senosis or atresia occurs slightly more frequently than intrinsic obstruction in the remainder of the small intestine, the jejunum and ileum. Stenosis and atresia appear to occur with equal frequency. The symptoms are of complete duodenal obstruction from birth in all cases of atresia and in approximately one-half of the cases of stenosis. The symptoms are of high intestinal obstruction with only limited abdominal distention. The vomitus generally contains bile. Additional congenital mal-

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formations are encountered in one-third of these infants. Mongolism and mental deficiency occur all too frequently. Approximately 25% of these infants are born prematurely. Multiple atresias rarely occur in the duodenum. The operation of choice is a by-passing duodenojejunostomy.

Case Report

The patient, a 3 pound, 7 ounce premature male infant was seen at four days of age because of persistent vomiting and some abdominal distention. A flat film of the abdomen showed a considerable amount of gas in the stomach and the proximal duodenum. No air could be identified in the intestinal tract beyond the duodenum. The patient was found, in addition, to have a fusion of the fourth and fifth lumbar vertebrae. Pregnancy had been complicated by the occurrence of an acute polyhydramnios.

The patient was operated upon and a duodenal atresia was found. Duodenojejunostomy was carried out in two layers with 5-0 arterial silk sutures. The patient did well following operation and weighed 5 pounds, 13 ounces at the time of his release from hospital. A successful shunt operation for the relief of cyanotic congenital heart disease (tetralogy of Fallot) was performed at two years of age in Indianapolis by Dr. H. B. Shumacker, Jr. The child now is two and a half years old and his mental development appears to be normal.

Annular Pancreas

Annular pancreas results from failure of the ventral anlage of the pancreas to rotate normally with the duodenum and the outlet of its duct into the duodenum, the duct of Wirsung. A potentially obstructing ring of pancreatic tissue around the duodenum results. Complete duodenal obstruction from birth occurs in many of these infants. Symptoms often do not occur until adult life. The major symptoms of annular pancreas are those of duodenal obstruction, obstructive jaundice, pancreatitis and gastroduodenal peptic ulceration. Duodenal obstruction is the principal source of difficulty in the newborn. A by-passing duodenojejunostomy is the operation of choice. Operative attack on the obstructing pancreatic ring is contraindicated. Duodenal obstruction tends to persist and pancreatitis and pancreatic fistula formation often occur when an attempt is made to relieve the obstruction by division or resection of a part of the obstructing pancreatic ring.

Jejuno-Ileal Atresia

Intrinsic small intestinal obstruction beyond the ligament of Treitz is encountered less frequently than in the duodenal area and generally the obstruction is due to atresia rather than stenosis. Multiple atresias are relatively frequent, being found in approximately 25% of the cases. The abdomen may become quite distended. A higher mortality may be anticipated in dealing with these malformations than is encountered in operations for duodenal stenosis and atresia. A great disparity tends to exist between the dilated proximal segment, in the area of atresia, and the collapsed and abnormally small distal segment. Primary anastomoses are utilized by some surgeons. The author prefers exteriorization of the two segments in a Mikulicz-type double enterostomy, with early crushing of the spur.

Case Report

The patient, a newborn female infant was seen at four days of age because of abdominal distention and vomiting. On examination, the patient was found to have a Type 1 imperforate anus. This was managed by rectal dilatation. Roentgenograms of the abdomen showed evidence of ileal atresia (Figure 1). At operation, multiple atresias of the mid and proximal ileum were found. There were three areas of atresia giving the bowel the appearance of links of sausage. There was a complete lack of bowel and mesenteric continuity between the proximal and distal areas of atresia. The distal ileum was suspended on a small vascular cord. The bowel was wrapped around the vascular pedicle in a spiral manner. The atretic areas were excised with a portion of the distal ileum and a Mikulicz-type of double enterostomy was carried out.

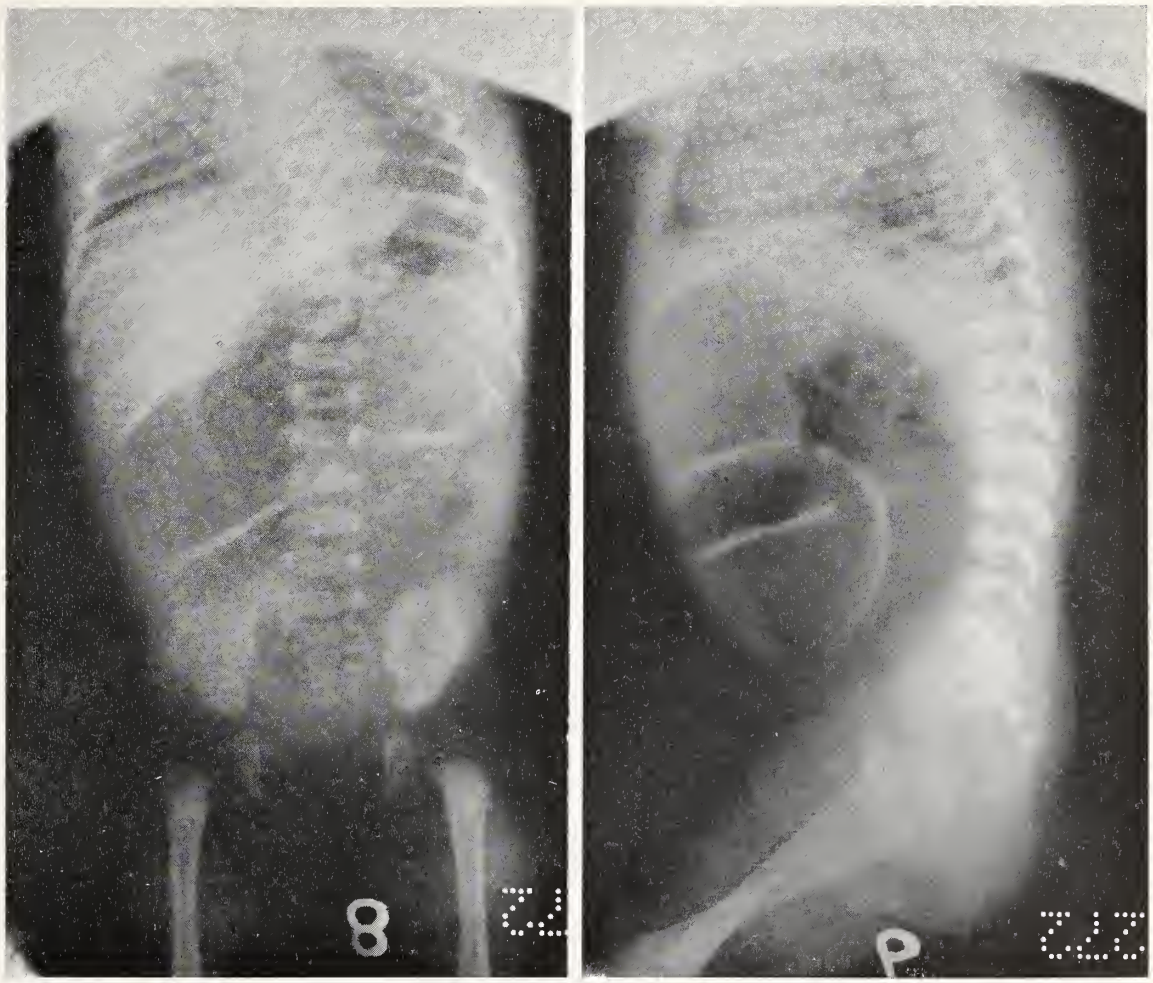


FIGURE 1

ANTERIOR-POSTERIOR and lateral roentgenograms of newborn infant with multiple ileal atresias.

Three additional operations were required for relief of adhesive small intestinal obstruction. Intestinal continuity was reestablished. She began to gain weight following the last operation and was discharged from the hospital two months following birth. She was seen recently, four and a half years following the operation. Her physical and mental growth has been normal. Intermittent episodes of mild diarrhea have been experienced from time to time.

Meconium Ileus

Obstruction of the distal ileum at birth by tenacious, tar-like meconium results from a deficiency of pancreatic enzymatic secretions which accompanies cystic fibrosis of the pancreas. The deficiency may be widespread involving mucous secreting organs. It has been termed mucoviscidosis. The roentgen picture of meconium ileus often is rather characteristic. It is produced by small gas bubbles being driven into the viscid meconium by vigorous peristaltic activity. Until recent years, this condition was uniformly fatal. Operative relief of the obstruction may be facilitated by the use of solutions of pancreatic enzymes. Resection of a portion of small intestine often is necessary. A Mikulicz double enterostomy may be useful at times. Progressive trachael and bronchial obstruction with tenacious mucous secretions may lead to the death of a number of infants whose intestinal obstructions have been managed successfully.

Anomalies of Midgut Rotation and Fixation

From the fifth to tenth week of embryonic life the midgut occupies the base

of the enlarged umbilical cord and is largely extra-coelomic in location. After the tenth week the midgut returns to the coelomic cavity and rotates in a counterclockwise manner on its axis, the middle colic artery. The cecum comes to rest in the right lower quadrant and the dorsal mesentery is anchored to the posterior abdominal wall by the fixation of the mesocolon of the ascending and descending colon. Failure to complete this normal rotation and fixation may lead to the occurrence of intestinal obstruction in the newborn.

Over one-half of the patients in the pediatric age group who are operated upon because of malformations of intestinal rotation and fixation are in the first month of life. In some cases the obstruction is duodenal and is due to bands passing from a right upper quadrant cecum to the abdominal wall. This type of obstruction may be relieved by division of the obstructing band, as suggested by Ladd.

Failure of fixation of the dorsal mesentery may predispose to the occurrence of obstruction from midgut or small intestinal volvulus. The obstruction may be merely mechanical or may be complicated by an ischemic element as well. Prompt de-rotation of the volvulus is essential. Extensive small bowel ischemia and necrosis may be encountered. Bowel resection often is required in these cases.

Case Report

The patient, a prematurely born female infant, was seen at three days of age because of abdominal distention and vomiting. A flat film of the abdomen showed evidence of small bowel obstruction. In addition, a sizeable mass appeared to occupy the right upper and lower abdomen (Figure 2). Calcium deposits were seen in the area of the mass. The patient was given a barium enema which showed normal anatomic position of the large intestine. A hepatic tumor was suspected. The right abdominal mass appeared to be continuous with the liver. The patient was taken to the operating room shortly after being seen. Upon entering the peritoneal cavity, a large solid mass was encountered in the right side of the abdomen. It was adherent to the abdominal wall and adjacent viscera. A fibrino-adhesive type of meconium peritonitis existed. It was found that the patient had a midgut volvulus with gangrene of approximately one-third of the small intestine. The solid-appearing mass was the gangrenous terminal one-third of the small intestine. There were about two and one-half complete turns of the volvulus on the vascular pedicle. The volvulus was de-rotated. The gangrenous one-third of the small intestine was resected and a double enterostomy was carried out. Four days after operation the patient was found to have marked abdominal distention. Roentgenograms showed a massive tension pneumoperitoneum. The peritoneal cavity was again explored. The peritoneal cavity was filled with gastric juices, formula and air. The fundus of the stomach was necrotic and the anterior wall of the stomach had sloughed away leaving a large communication with the peritoneal cavity. The necrotic proximal 75% of the stomach was resected and the esophagus was anastomosed to the antrum. Gastric contents were removed from the peritoneal cavity and adhesions divided.

Five days later, crushing of the double enterostomy spur was completed and the double enterostomy was closed. The patient recovered and was taking all feedings by mouth at the time of her release from the hospital four weeks after the initial operation. She has continued to do well.

Internal Hernia

Obstruction of small intestine and even ischemic necrosis of the bowel may occur as the result of herniation of small bowel through congenital intra-abdominal defects. This herniation may even occur in-utero. The defects may be in the retro-cecal and retro-duodenal areas, in the foramen of Winslow, in the omentum, in the broad ligament of the uterus and in the mesentery and the mesocolon. The mesentery of the terminal ileum is one of the commonest areas for congenital internal hernia. Recognition of intestinal obstruction due to internal hernia often may be delayed. Prompt operative relief of the obstruction is imperative.

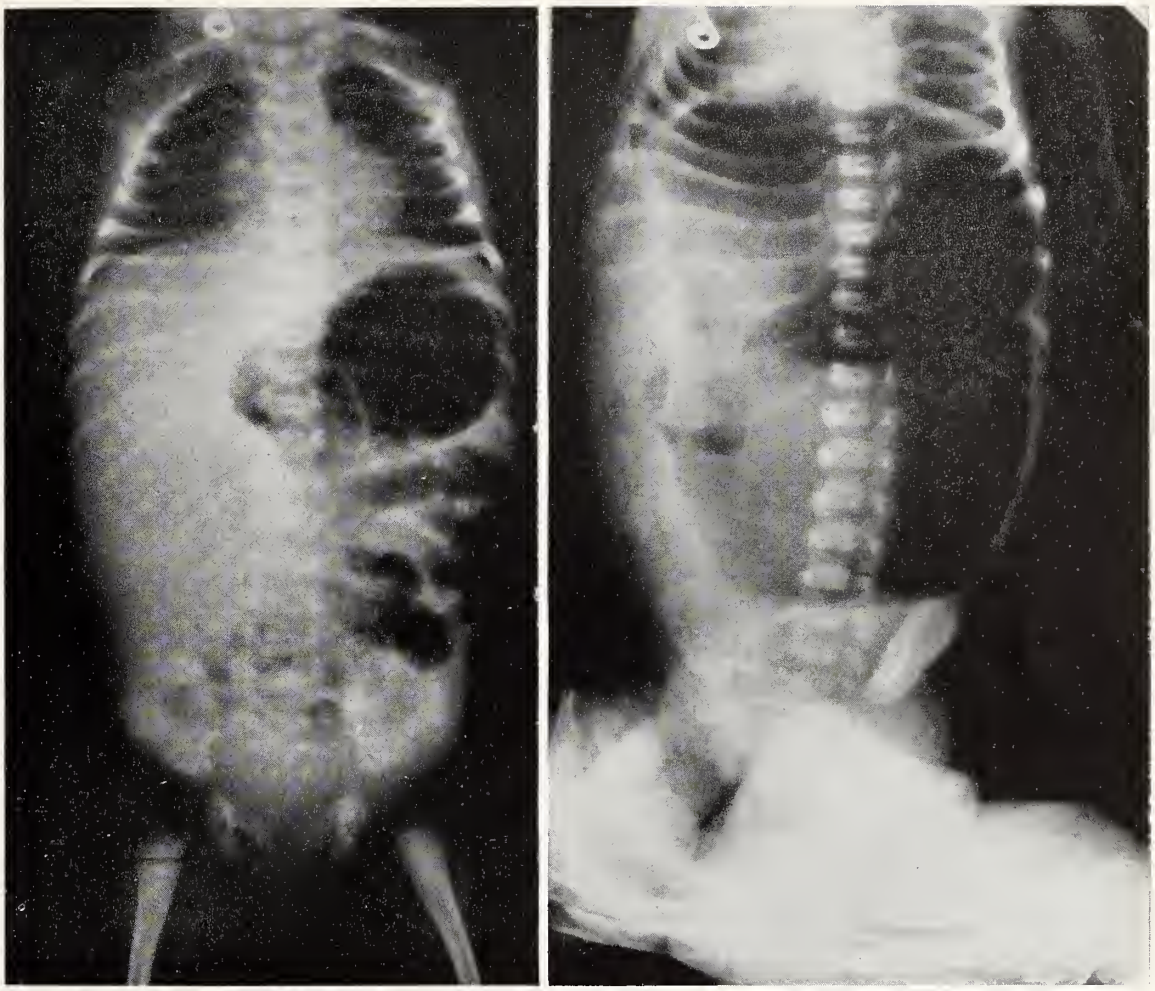


FIGURE 2

ROETGENOGRAMS showing oppeoronce of right obdominol mass ond colcium deposits ot three days of age (left). Mass wos due to necrotic ileal volvulus with meconium peritonitis. Roentgenogram (right) shows tension pneumoperitoneum ot seven doys of oge due to necrosis ond slough of fundus of stomoch.

Hirschsprung's Disease (Aganglionosis)

Neonatal intestinal obstruction may be produced by the absence of myenteric (Auerback) plexus ganglion cells in the colon, usually in the distal colon. A spasm of the abnormal segment of colon results. Abdominal distention and vomiting appear in the first few days following birth. The infant may pass a stool of normal appearing meconium. The first stool may not be passed until a rectal examination has been carried out. Without relief, intermittent and partial intestinal obstruction lead to intermittent abdominal distention and vomiting. The infant fails to gain weight and does poorly.

Aganglionosis with intestinal obstruction in the newborn should be managed by a colostomy made proximal to the area of abnormally innervated colon. Frozen sections of segments of colonic muscle are studied to determine the extent of the aganglionosis. Colostomy is carried out in an area of normal colon, shown by frozen section to contain normal myenteric plexus ganglion cells. Following colostomy, these infants do quite well. Vomiting and abdominal distention are relieved and normal feeding and weight gain result. At some point between six and 12 months of life an elective combined abdominal-perineal pull-through operation, as described by Swenson, is carried out.

Case Report

The patient, a male infant, was admitted to the hospital at three days of age because

of abdominal distention, vomiting and failure to pass stool. Roentgen study of the patient, on admission to the hospital, showed considerable gaseous distention of the large and small bowel with fluid levels (Figure 3). The findings suggested the presence of bowel obstruction. After rectal examination, the patient did pass some meconium. Roentgenograms the next day showed marked diminution in the degree of gaseous distention. The patient was released from the hospital.



FIGURE 3

FLAT ROENTGENOGRAM of the abdomen showing appearance of intestinal obstruction at three days of age due to left colonic aganglionosis.

At home, the patient continued to have intermittent difficulty with vomiting and abdominal distention. He failed to gain weight during his first month of life and his general condition became precarious. He was readmitted to the hospital for further study. Barium enema studies suggested colonic malfunction and spasm. Laparotomy was carried out. Repeated frozen section studies of colonic muscle showed that no ganglion cells were present in the myenteric plexus from the sigmoid colon to the splenic flexure. Normal cells were found in the transverse colon and a loop colostomy was performed in this area.

The chronic intestinal obstruction with vomiting and distention was relieved promptly. The infant gained weight steadily and satisfactorily following release from the hospital and weighed 22 pounds at one year of age. At this time he was readmitted to the hospital and a Swenson abdominal-perineal pull-through was performed. The middle colic artery was divided and the proximal ascending colon was utilized for the pull-through anastomosis. The post-operative course was uneventful. He has continued to do well since his release from the hospital.

Imperforate Anus

Imperforate anus is the commonest cause of intestinal obstruction in the newborn. A fistula from the blind-ending rectal pouch usually occurs. In the female infant the fistula is into the vagina or onto the perineum; whereas, in the male infant, it is into the bladder or the urethra or onto the perineum. An occasional low rectal pouch may be found. However, in the majority of cases, the pouch is relatively high, with three or more centimeters separating the anal dimple and the pouch. The upside-down roentgen technic of Wangensteen and Rice is useful in evaluating the distance from the anal dimple to the rectal pouch. Infants with imperforate anus seldom are born prematurely. On the other hand, the incidence of additional congenital malformations in patients with imperforate anus is quite high.

Careful physical and roentgen evaluation should be carried out to establish the presence or absence of some of the more common and more threatening malformations. It is especially important that the presence of esophageal atresia and obstructive urinary tract malformations be detected early. The low-lying pouch may be managed by a perineal anoplasty. The commoner high pouches are managed most effectively by a combined abdominal and perineal operation.

Case Report

The patient, a colored male infant, was seen at one day of age because of imperforate anus and mild abdominal distention.

Roentgen studies employing the Wangensteen-Rice technic, showed evidence of a relatively high rectal pouch (Figure 4). At two days of age, the patient was taken to the operating room where a combined abdominal-perineal pull-through repair was carried out. A rectovesical fistula was found and divided. A suprapubic cystostomy was carried out. The cystostomy tube was removed ten days after operation. The postoperative course was uneventful and the patient was doing well when last seen. ◄



FIGURE 4

UPSIDE-DOWN, LATERAL roentgenogram in infant with imperforate anus showing distance between blind rectal pouch and metallic foreign body at anal dimple (arrows).

From *The Journal* Fifty Years Ago

. . . As to treatment of these cases [chronic cholecystitis] there is a medical and a surgical side. I felt for a long time that there was only a surgical side, but after having had the experience of operating on a patient, removing a large number of gallstones, and two years later having the same patient return to me with a positive history of a return of the gallstones in the gallbladder, I now feel that we have neglected our patients if we do not follow our surgical work with a protracted line of medical treatment. We know that our gallstone and gallbladder patients can go to certain Bads and Spas and get relief after a certain length of time, but those of us who have followed our cases closely can secure at home the same degree of relief, provided our patient will as consistently take the water cure in their homes as they do abroad. I do not feel satisfied after a gallbladder operation to have the drainage cease too quickly. I use a large tube for drainage because the opening that it leaves will require a longer time to close. I feel better satisfied when the gallbladder drains for six weeks than when it closes in two, but I insist on my patients remaining under close observation for at least six months after operating on them, and during that time, giving them the benefit of what Byron Robinson aptly called visceral drainage.

Maynard A. Austin, M.D., Gallbladder Infections and Gallstones, from a Study of 100 Cases, *JISMA*, May, 1912

Reserpine Complications in Obstetrical Patients

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SINCE 1931, when a number of active alkaloids were isolated, Rauwolfia serpentina compounds have become more popular in the treatment of hypertensive states.[1] An ever increasing number of reports have been accumulated describing the complications of its administration. Gastrointestinal hemorrhage,[2,3,4,5] neurologic changes,[6] hypothermia,[7] congestive heart failure,[8] pneumonia,[9] gynecomastia,[10] in addition to several others[11] have been enumerated.

More recently the use of parenteral reserpine, an active alkaloid, has been advocated in the treatment of hypertension associated with preeclampsia and pregnancy.[12,13] Its sedative action combined with its antihypertensive qualities make it an excellent single medication to utilize in the treatment of preeclampsia. Its action is thought to be primarily central at the level of the hypothalamus. Depression of the vasoconstriction center produces vasodilation peripherally.

Two case histories illustrate the occurrence of two of the complications which have been described, and are reported because of the rapidity of onset, severity, and large dosage of reserpine used.

Edema and Weight Gain

Case #1

A 28-year-old white female gravida 4 para 3, with an expected date of confinement on Sept. 4, 1957, was admitted to the hospital on July 24, 1957. Past history and family history were unremarkable except for an isolated unexplained episode of hematuria and occasional bright red rectal bleeding, presumably associated with constipation. No other gastrointestinal symptoms or items of history were elicited. She was seen prenatally from the third month. At six-and-a-half months gestation a total weight gain of 23 pounds, blood pressure of 120/80 and a negative urinalysis were noted. At seven-and-a-half months gestation a weight gain of nine pounds in one month, generalized edema, a "heavy trace" of albumin and blood pressure of 145/80 were noted. Salt restriction and bed rest were advised.

Eight days later the patient was admitted to the hospital following a generalized convulsion at home. Blood pressure at admission was 170/100. Intravenous sodium amobarbital 500 mgm., reserpine 5 mgm., and intravenous 5% dextrose in water were administered. The patient was oliguric. Approximately 12 hours after admission, induction with a Vorhees bag was carried out and the patient delivered a living premature infant by breech presentation six hours later. The baby did well. Additional intramuscular reserpine was used to stabilize the patient's blood pressure during this period and a total of 30 mgm. (5 mgm. intravenously, 25 mgm. intramuscularly) were administered in the 18 hours from the time of admission to delivery.

Reserpine Administered Orally

The patient remained oliguric and required irregular doses of intramuscular reserpine (2.5-5 mgm.) to control blood pressure and for sedation. Approximately 36 hours post-partum a spontaneous diuresis began. On the seventh post-partum day the reserpine was changed to the oral route. The patient was discharged on the ninth hospital day. The following regime was prescribed—bed rest, reserpine 0.2 mgm. three times daily, and phenobarbital 60 mgm. three times daily.

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Hemoglobin concentration recorded during this admission was 13 Gm. per 100 ml. Four days later the patient was admitted to the hospital following three syncopal episodes at home. She denied any external bleeding. Her pulse was rapid and weak, blood pressure was 80-100 systolic, hemoglobin determination was 4.9 Gm. Approximately six hours after admission following the administration of 1,000 cc whole blood the patient passed 300 to 400 cc of melenic stool. Shortly thereafter she vomited coffee ground material and a Levine tube was passed. The patient continued to bleed. Twelve hours following admission an exploratory laparotomy was performed and an actively bleeding branch of the inferior pancreato-duodenal artery was found and ligated. A half-centimeter ulcerated area without induration was noted about the base of the bleeding artery. The postoperative course was complicated minimally by superficial thrombosis of the saphenous vein of the left leg, probably from intravenous therapy. The patient recovered fully. Followup at eight weeks was not unusual except for slight epigastric discomfort. A total of 45 mgm. of reserpine were administered parenterally and the patient ingested, as best can be determined, 4.7 mgm. of reserpine prior to her hemorrhagic episode.

Past History of Hypertension

Case #2

A 29-year-old white female gravida 4 para 2 ab 1 whose expected date of confinement was July 14, 1958 was admitted to the hospital on July 4, 1958 in apparent early labor. Blood pressure was 180/110, and albuminuria 25 volumes %. Past history indicated the patient to have been normotensive in the recent past but with a past history of hypertension. Eight weeks prior to admission the patient was advised to remain at bedrest because of hypertension, a total weight gain of over 30 pounds and evidence of pyelonephritis with albuminuria. Following hospitalization, therapy was begun with parenteral reserpine with a diagnosis of severe preeclampsia. After five hours and a total of 15 mgm. (10 mgm. intramuscular, 5 mgm. intravenously) of reserpine the blood pressure was 210/130 and intravenous hydralazine was added. Blood pressure was maintained in the 160/110 range by repeated doses of the medications until delivery.

To the time of delivery the patient had received 110 mgm. of reserpine parenterally and 82.5 mgm. of hydralazine intravenously. Delivery was accomplished after a pitocin drip induction on the third hospital day. The infant did well. Following delivery, blood pressure was controlled primarily with intramuscular reserpine in 5 to 10 mgm. doses which were administered as the blood pressure increased. On several occasions the blood pressure increased to levels of over 200/120 in spite of the heavy dosage.

Reserpine Discontinued

On the fourth post-partum day reserpine was discontinued and the patient received oral hydralazine 25 mgm. every six hours. Late on the fifth post-partum day the patient became listless and complained of weakness; a slight tremor of all extremities was noted intermittently. All medication was discontinued. Inadvertently the patient received an additional 30 mgm. of reserpine intramuscularly and 50 mgm. of hydralazine orally on the seventh post-partum day. Over the next 48 hours the patient's condition worsened markedly. Tremor was constant, lethargy and weakness pronounced and the patient did not speak. Intravenous methamphetamine (Methedrine) 20 mgm. was given and in a short period of time the patient became alert and able to speak and move about. Oral dextro-amphetamin (Dexadrine spansules) was prescribed. An ulcer regime which had been instituted prior to the depression because of the known gastrointestinal effects of reserpine was resumed. Tremor decreased and blood pressure stabilized at about 150/110 without medication and the patient was discharged on the 14th post-partum day. The patient received a total of 325 mgm. of reserpine and 366.5 mgm. of hydralazine in the 10 days of hospitalization; 110 mgm. of reserpine and 82.5 mgm. of hydralazine being administered prior to delivery.

C.N.S. Disturbance Noted

Followup of this patient approximately 13 months after delivery for complaints of headaches and abdominal pain of three

weeks duration showed the blood pressure to be 126/94, blood urea nitrogen 7.5 mgm. percent, 10 to 15 white blood cells and a very faint trace of albumin in the urine. Phenolsulfonphthalein test revealed 50% excretion in 30 minutes and a gram negative bacillus was cultured from the urine.

Chest, gallbladder and upper gastrointestinal series x-rays were all within normal limits. The impression at the time was a chronic pyelonephritis and chronic anxiety manifested by gastrointestinal somatization. No neurological findings were present. An electroencephalogram was not done.

Discussion

Two cases in which large amounts of reserpine and reserpine with hydralazine were administered have been presented in summary. These massive doses could only have been administered parenterally because of the gastric intolerance which limits the maximum oral dosage per day. Patients have taken oral medication for several years with no major complications and yet severe gastrointestinal hemorrhage is reported with as little as 7 mgm. administered in a 14 hour period (5 mgm. intravenously, 2 mgm. orally).[2]

Several studies are available which indicate increased gastric motility[10,14] (diarrhea) and increased acidity[15] with ulcer formation and hemorrhage. Gastrointestinal bleeding and central nervous system disturbances have been reported, although less frequently, with hydralazine.[5]

The amount of medication received by these patients far exceeds our usual dosage schedule and represents the only two major complications from their use seen on our active obstetrical service (over 15,000 deliveries) in the past three years.

Summary

1. Two cases have been summarized in which massive doses of reserpine (45 mgm.) and reserpine (325 mgm.) with hydralazine (366.5 mgm.) were administered parenterally.
2. It is the author's feeling that in view of the past history of the patients and the current followup, that the gastrointestinal hemorrhage in case No. 1 and the central nervous system disturbance in case No. 2 were toxic manifestations of reserpine administration.
3. In both cases recovery was complete and there is no apparent residual of the primary condition or the toxic reaction.

ACKNOWLEDGMENT

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REFERENCES

1. Goodman, L. S.; Gilman, A.: *The Pharmacological Basis of Therapeutics*, ed. 2, New York, The Macmillan Company, p. 754, 1955.
2. Duncan, D. A.; Fleeson, W.: Reserpine-induced gastrointestinal hemorrhage, *J.A.M.A.* 170:1661-1662, Aug. 1, 1959.
3. West, W. O.: Perforation and hemorrhage from duodenal ulcer during administration of Rauwolfia serpentina: report of five cases, *Ann. Int. Med.* 48:1033-1039, May, 1958.
4. Cangemi, V. F.: Gastro-intestinal bleeding during treatment for hypertension, *J. M. Soc. New Jersey* 53:369-370, July, 1956.
5. Wofford, J. D.; Cummins, A. J.: Hemorrhage from duodenal ulcer during the administration of reserpine, *New Eng. J. Med.* 255:1193-1194, Dec., 1956.
6. May, R. H.; Voegele, G. E.: Parkinsonian reactions following chlorpromazine and reserpine; similar reactions in same patients, *AMA Arch. Neurol. & Psychiat.* 75:522-524, May, 1956.
7. Payn, S. B.: Hypothermia following reserpine, *Am. J. Psychiat.* 112:657, Feb., 1956.
8. Perera, G. A.: Edema and congestive failure related to administration of Rauwolfia serpentina, *J.A.M.A.* 159:439, Oct. 1, 1955.
9. Wardell, D. W.: Untoward reactions to tranquilizing drugs, *Am. J. Psychiat.* 113:745, Feb., 1957.
10. Hussar, A. E.: Complications of chlorpromazine and reserpine therapy, *G.P.* 15:85-93, May, 1957.
11. American Medical Association: *New and Nonofficial Remedies*, Philadelphia, J. B. Lippincott Company, p. 347, 1958.
12. Rogers, S. F.; Lindley, J. E.; Moyer, J. H.; Desmond, M.: Management of toxemia of pregnancy with reserpine, *Obst. & Gynec.* 10: 17-27, July, 1957.
13. Lindley, J. E.; Rogers, S. F.; Moyer, J. H.: Clinical management of toxemia of late pregnancy, *G.P.*, 14:97-110, Aug., 1956.
14. MacArthur, J. G.: The complications of reserpine therapy, *Postgrad. M. J.* 33:544-547, Nov., 1957.
15. Clark, M. L.; Schneider, E. M.: Effect of intravenous reserpine on gastric acidity in man, *Gastroent.*, 29:877-881, Nov., 1955.

Prenatal Therapy with Cyclothiazide—A New Diuretic Agent

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SEARCHING for the cause of hypertensive toxemia of pregnancy has fascinated and frustrated countless numbers of expert investigators in the field of obstetrics. To date, the cause is still undetermined.

Although the basic cause of hypertensive toxemia of pregnancy remains, to date, undiscovered, the control of this serious complication is one of the major, attainable objectives of prenatal care. By controlling the physiologic abnormalities produced by the generalized arteriolar vasoconstriction, eclampsia—the grave, convulsive terminal phase—can usually be prevented. The classical manifestations of preeclampsia—edema, hypertension and proteinuria—usually appear progressively in that order.

The edema, which results from the inseparably linked water and sodium retention, may be detected early by observing an inordinate gain in the patient's weight. Once detected, treatment should be instituted promptly.

In the prenatal clinic at Marion County General Hospital, all patients on their first visit are given printed dietary instructions which emphasize that salt intake should be minimal. If, during the prenatal course, there is a weight gain in excess of one pound per week, a printed sheet outlining a rigid 1000 milligram daily sodium intake is prescribed. If, after one week on this special diet, there is no weight loss a diuretic is prescribed.

Diuresis may be accomplished by various agents. Ammonium chloride or the exchange resins are effective but have certain disadvantages. Ammonium chloride ceases to be natriuretic after about three days and may produce acidosis in a patient with impaired renal function. The exchange resins are unpalatable and require large doses. The relatively new widely-used thiazide diuretics are effective over long periods and are the agents of choice on our service.

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Cyclothiazide

Cyclothiazide,* or 6-chloro-3-4-dihydro-3-(5-norboren-2-yl)-7-sulfamyl-1,2,4-benzothiadiazine-1,1-dioxide, was synthesized by Whitehead[1] and has been demonstrated as a safe, effective and highly potent diuretic for oral administration.[2,3]

Based upon the differences between the mean excretion values and mean control values over the optimal dose range for each compound, cyclothiazide has been shown to be 200 times as potent as chlorothiazide.[2]

Material and Method

Cyclothiazide, in oral daily doses of 1 or 2 mg., was administered to 57 pregnant women attending the prenatal clinic of the Marion County General Hospital. The principal objective of this study was to determine the efficacy of the drug as a diuretic in patients who gained weight excessively—a frequent sign of incipient toxemia. Selection of each patient was based on all of the following criteria: (1) gestation beyond 28 weeks, (2) weight gain in excess of one pound per week followed by, (3) failure to lose weight after one week on special diet containing only 1000 milligrams of sodium daily.

The first 22 patients in the series received 1 mg. of cyclothiazide and the subsequent 35 patients received 2 mg. of cyclothiazide for periods of one week or longer. Since in many instances therapy was interrupted by

* Drug furnished by Eli Lilly and Company.

Weight and Blood Pressure Changes After 1 Week's Administration of Cyclothiazide (1 mg. per day) in 22 Patients With Excessive Weight Gain of Pregnancy

Patient	Duration of Therapy	Weight Change in First Week	Blood Pressure			
			Before Therapy		First Week After Therapy	
			Syst.	Diast.	Syst.	Diast.
	(weeks)	(lbs.)				
C.A.D.	1 week	−7.0	120	80	120	80
A.O.	1 week	−1.5	130	80	110	80
P.A.	1 week	−4.0	100	60	104	70
C.H.	1 week	−1.0	115	65	108	70
E.M.M.	1 week	−9.0	128	72	122	76
J.D.S.	1 week	−4.4	110	70	105	70
M.M.	4 weeks	−10.0	130	84	135	80
R.M.	1 week	0.0	110	70	140	80
P.G.	1 week	0.5	125	80	120	70
B.S.	1 week	−3.7	180	70	130	78
N.D.	1 week	−2.7	120	70	105	70
A.H.	1 week	−10.5	. .	. .	. .	. .
P.S.C.	1 week	+1.5	112	60	115	80
S.L.	1 week	−1.5	134	102	120	80
V.T.	1 week	−5.5	158	104	148	88
S.A.B.	1 week	−3.7	118	80	110	60
A.M.	1 week	−8.5	112	90	120	88
E.J.L.	2 weeks	+2.0	110	70	110	68
J.H.	9 weeks	−5.0	140	90	116	82
R.L.	1 week	−4.5	126	86	140	88
P.B.	1 week	−5.0	112	68	180	70
D.M.	1 week	−5.3	114	84	110	70
Average		−4.1	124	78	122	76

TABLE I

delivery and most treatment periods were of relatively short duration, the weight changes observed after one week's therapy with this diuretic agent were used as an index of its diuretic action. Blood pressure changes were also recorded.

Results

As outlined in Table I, in the patients receiving 1 mg. of cyclothiazide per day, a weight loss occurred in all but three patients with an average decrease in body weight of 4.1 pounds. The average blood pressure for the group on the clinic visit prior to institution of cyclothiazide therapy was 124/78. After one week's therapy with cyclothiazide, the mean blood pressure for the group was 122/76. Only in two patients (B. S. and V. T.) was the blood pressure elevated above the usually accepted normal limits. In both instances a decrease to normal levels was observed after one week's therapy with cyclothiazide (180/70 to 130/78 and 158/104 to 148/88). In a third patient a blood pressure decrease from 140/90 to 116/82 was observed after one week's therapy with cyclothiazide.

In Table II the weight and blood pressure changes in the 35 patients receiving 2 mg. of cyclothiazide per day for one week or longer are shown. In this group all but six patients lost weight in excess of one pound; maximal weight loss was 12.5 pounds with the average for the group being 3.2 pounds. Prior to institution of cyclothiazide therapy the average blood pressure for this group of patients was 120/78. After one week's therapy the average group blood pressure was 119/76. In the two patients showing an elevation of blood pressure when cyclothiazide was started, a significant lowering was observed:

Weight and Blood Pressure Changes After 1 Week's Administration of Cyclothiazide (2 mg. per day) in 35 Patients With Excessive Weight Gain of Pregnancy

Patient	Duration of Therapy	Weight Change in First Week	Blood Pressure			
			Before Therapy		First Week After Therapy	
			Syst.	Diast.	Syst.	Diast.
		(lbs.)				
L.G.	4 days	−4.5	170	110	132	80
M.L.	3 weeks	−3.5	125	82	125	70
Q.M.	1 week	−5.0	116	80	114	80
P.C.	1 week	−0.5	96	70	112	68
D.A.	4 weeks	−1.5	100	65	110	70
L.C.	3 weeks	−4.0	145	100	122	82
B.G.	1 week	−7.5	160	90	140	72
J.B.	2 weeks	+1.7	140	90	140	85
H.L.	12 days	−0.2	132	95	118	80
M.J.	4 weeks	−2.2	126	75	132	68
S.S.	1 week	−2.0	110	70	108	50
D.B.	10 days	−2.5	110	80	104	76
M.D.	2 weeks	−5.5	98	60	100	60
E.T.	6 weeks	−4.5	. . .	.		
R.J.	12 days	−4.0	110	70	104	70
R.L.	3 weeks*	−1.2	114	74	110	70
A.W.	1 week	−12.5	120	84	120	84
E.G.	10 weeks	+5.5	110	65	130	90
E.W.	2 weeks	−1.2	100	50	106	54
C.M.	2 weeks	−4.0	114	56	128	80
B.G.	3 weeks	−3.0	100	60	118	60
M.H.	2 weeks	−2.2	124	88	120	80
H.W.	3 weeks*	−11.5	100	70	112	76
K.T.	2 weeks	−2.2	110	80	106	76
D.S.	1 week	+3.5	120	80	128	80
M.I.	2 weeks	+1.2	120	80	110	80
J.J.	3 weeks	−5.0	110	70	120	80
C.R.	11 days	−3.0	120	80	126	80
M.C.	11 days	−8.7	90	65	106	80
B.B.	2 weeks	−1.2	110	75	114	70
D.J.	1 week	−6.5	128	92	142	92
J.A.N.	1 week	−3.0	165	115	130	90
S.J.A.	1 week	−6.0	142	82	120	80
B.R.	2 weeks	−1.5	112	74	130	85
C.D.	1 week	−4.4	128	80	118	76
Average		−3.2	117	76	118	74

* not continuous

TABLE II

	Blood Pressure before therapy	Blood Pressure after one week of therapy
L. G.	170/110	132/80
B. G.	160/90	140/72

No deleterious effects were observed from either dose level of cyclothiazide on mothers or delivered infants. All patients, except one, in this study have now delivered a normal living child and have been discharged from the hospital. Ten of the total group manifested borderline blood pressure elevations during hospitalization for deliv-

ery and these were diagnosed, on discharge, as mild preeclampsia. None of the patients in the study ever developed proteinuria or severe preeclampsia.

The group of patients who received only 1 mg. doses of the drug lost as much weight as those who received 2 mg. doses. On this smaller dose the decrease in body weight observed in these patients was of the magnitude and consistency to be expected from adequate dosage of a thiazide diuretic. Assali and Judd reported[4] the effect of chlorothiazide, in daily oral doses of 1000 mg., on 100 pregnant women who manifested excessive weight gain and edema. As an index of the drug's efficacy they also used the weight loss after one week of therapy. The average weight loss in that group, on 1000 mg. chlorothiazide daily, was 3½ lbs. Thus, the current study, herein reported clearly indicates that cyclothiazide, mg. for mg., is a much more potent diuretic than chlorothiazide.

Summary

Twenty-two patients with excessive weight gain of pregnancy received 1 mg. of cyclothiazide daily and 35 patients with the same diagnosis received 2 mg. of cyclothiazide daily for periods of one week or longer in this study. The decrease in body weight occurring in the first week of therapy averaged three to four pounds, being of the magnitude expected from adequate dosage of a thiazide diuretic.

Conclusion

Cyclothiazide, a new diuretic agent, is highly effective and is of a high order of potency. ◄

REFERENCES

1. Whitehead, C. W., Traverso, J. J., Sullivan, H. R., Marshall, F. J.: Diuretics. V. 3,4-Dihydro-1-2,4-benzothiadiazine-1,1-dioxides. *J. Org. Chem.* 26:2814, 1961.
2. Anderson, R. C., Tust, R. H., Henderson, F. G.: The Pharmacological Activity of Cyclothiazide —To be published.
3. Julius, S., Weller, J. M., Hoobler, S. W., "A Comparative Study of Several Thiazides with Special Reference to the Diuretic and Antihypertensive Effects of Cyclothiazide" Current Therapeutic Research 4:57, Feb., 1962.
4. Assali, N. S., Judd, B. S.: Clinical and Metabolic Study of Chlorothiazide, *J.A.M.A.*, 169:26, 1959.

A Plea for Help

Doctor Hans Selye, Professor and Director of the Institute of Experimental Medicine and Surgery, University of Montreal, asks the help of the members of the Indiana State Medical Association. The Research Library at the Institute has suffered extensive losses due to fire. To aid in rebuilding the library, Dr. Selye asks that Indiana doctors send available reprints of their work, particularly those papers dealing with Endocrinology and Stress.

The fire also destroyed the permanent mailing list, therefore they are unable to send reprints of their own work except to those who write to the Institute. If you have reprints that you are able to send or if you desire to be placed on their permanent mailing list, write to: Institute of Experimental Medicine and Surgery, University of Montreal, P.O. Box 6128, Montreal 26, Canada.

Phenylketonuria

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PHENYLKETONURIA occupies the center of the stage among all the latter-day clinical entities known as inborn errors of metabolism.

A short time ago, inborn errors of metabolism represented an esoteric group of diseases understood only by the specially initiated and unlikely to be encountered in clinical practice. Today, the medical literature is generously providing fundamental information about this group of diseases. Now, even those of us not endowed with the background of the geneticist and the enzyme chemist, can gain a workable knowledge of these new entities.

Phenylketonuria is unique because it is easily detected and because its successful dietary management represents one of medicine's first footholds in the prevention of mental deficiency.

Clinical signs of phenylketonuria are not apparent in the newborn, but the infant develops progressive mental deficiency unless the disease is detected and treated in the early weeks of life. The phenylketonuric child seems to be an ordinary imbecile but is apt to have unusual characteristics. He may show only a slight reduction in stature and head size. He is likely to be more blond than his parents or normal siblings. He displays agitated behavior, occasionally he may develop eczema or other skin conditions, and it is likely that he will show electroencephalographic abnormalities. Probably he will have a distinctive, musty, unpleasant odor.

Condition is Hereditary

The discovery of phenylketonuria was brought about by the musty odor of two siblings who had been taken hopefully from doctor to doctor and finally were brought to the attention of the brilliant and dedicated physician and biochemist, Dr. Asbjorn Fölling of Norway. Dr. Fölling's pioneer work on phenylketonuria started a chain of events which continues to uncover new entities in a challenging new group of diseases.

Phenylketonuria is a *hereditary condition.* The defective gene in the phenylketonuric individual produces an inability to properly metabolize the amino acid phenylalanine. A deficiency of the liver enzyme phenylalanine hydroxylase causes an accumulation of l-phenylalanine in the blood and spinal fluid. This in turn causes disturbances in pigment metabolism and damage to the central nervous system.[1]

It has been assumed that little damage is done to the infant's mental development until such a time as the level of serum phenylalanine has risen high enough to spill over in the urine. This occurs when the level reaches 10 to 15 mg. per 100 ml., which may take two to six weeks after birth. Blood levels in the untreated phenylketonuric reach 15 to 60 mg. per 100 ml. The normal blood phenylalanine level is 1 to 3 mg. per 100 ml.[2]

Brain Damaged Prenatally?

The brain may be especially susceptible to damage during the first weeks of life, although the exact mechanism of brain damage in the phenylketonuric is poorly understood. The phenylketonuric infant, after physical and biochemical severance from his mother, has to rely on his own liver enzymes, a deficiency of which creates an abnormal bichemical environment during a crucial period in the growth and development of the brain.

Recently, Berman[3] has called attention to an uncertainty as to whether or not some damage occurs even before birth. The heterozygote mother has a reduced amount of the enzyme phenylalanine hydroxylase compared with that of the normal individ-

ual, and it is possible that some brain damage occurs to the infant prenatally.

If the infant does not have an excess of serum phenylalanine at birth, the level is soon elevated when he begins to take food.

The protein fraction of all natural foods contains phenylalanine in the remarkably constant and considerable amount of about five percent. The presence of this amino acid in all food proteins makes it impossible to prescribe a low phenylalanine diet from nature's produce.

Dietary Control now Possible

As the mystery of phenylketonuria unfolded, it became obvious that the disease would remain a medical curiosity unless a specially prepared, low phenylalanine food could be developed. At the request of many physicians, Mead Johnson & Company instituted research to develop a dietary product that would meet the need of phenylketonurics for a basic food.

A casein hydrolysate was processed to remove phenylalanine. Then the product, called Lofenalac, was formulated in which the low phenylalanine protein hydrolysate is combined with carbohydrate, fat and other nutritional elements to provide a nearly complete food. It is now possible to largely prevent the mental deterioration of phenylketonuria by early and careful dietary control.

The *early detection* and *dietary treatment* of phenylketonuria is of vital importance to society as well as to the family and the individual. The mental retardation of phenylketonuria is a catastrophic development for the family involved.

From the socio-economic standpoint, the value of early discovery of the disease is immeasurable. The savings to the taxpayers when such a child is spared his lifetime in an institution is in the neighborhood of $100,000. It is estimated that about 200 phenylketonurics are born each year. Early detection and the avoidance of institutional care theoretically would save the taxpayers $20,000,000 when spread over the lifetime of the annual crop of phenylketonurics.[4]

Phenylketonuria is estimated to occur in about 1 out of 20,000 births. It is a recessive familial disease and 1 in 70 persons in the United States may be a carrier. There are 6,000 to 9,000 phenylketonuric mental defectives in the United States and about 25% of these are in institutions.

Urine Test now Law in Indiana

Screening programs set up as Public Health measures provide the only way at the present time to find phenylketonuric infants in previously uninvolved families. For the past few years, the U. S. Department of Health, Education and Welfare has recommended that all states undertake screening programs for the disease and has approved the use of Maternal and Child Health funds for diagnostic purposes and for the purchase of dietary products to control it.

The decision as to whether the state wishes to use these funds for this purpose rests with the state. The exact number of states using funds in this manner is not known, but at least half of the states have set up screening programs using the ferric chloride urine test or some modification of it. At the present time, Indiana[5] is the only state with a law requiring physicians to test for phenylketonuria by means of the urine test.

The urine test in its simplest and cheapest form is the direct diaper test. It is carried out by placing a few drops of 10% ferric chloride solution on the wet diaper as the infant is being undressed for physical examination. A blue-green color reaction is obtained immediately if phenylpyruvic acid is present in the urine.

Practical modifications of this test are: (1) the Phenistix test and (2) the filter paper test. The Phenistix test is done with a commercially prepared ferric chloride impregnated paper test strip. In the filter paper test (successfully used in Cincinnati screening programs) a standard size piece of filter paper is simply placed in the baby's diaper until soaked with urine. Then the paper is air-dried, mailed back to the medical center and tested with ferric chloride.

Screening programs to date, have hinged entirely upon the detection of phenylpyruvic acid in the urine, primarily with the use of ferric chloride. Unfortunately, how-

ever, phenylpyruvic acid usually does not appear in the urine until the second or third week of life, sometimes not until the sixth week. Even at this late date the *final diagnosis requires positive evidence of an elevated level of phenylalanine in the blood.*

Newborns to be Tested

An early screening test for phenylketonuria which would eliminate the hazardous time lag, has been the dream of investigators for a long time. This dream now seems about to materialize. A test has been devised for use in the newborn period before the hospital and doctor lose contact with the infant.

This new test, which utilizes the bacterial metabolism of Bacillus subtilis, has been developed by Dr. Robert Guthrie,[6] Professor of Pediatrics, University of Buffalo. When Bacillus subtilis is cultured in the presence of B-2-thienylalanine as an inhibitor, it does not grow except when phenylalanine is present to remove the inhibition.

The test requires only a few drops of blood from a skin puncture. In making the test, fresh blood is applied immediately to a piece of filter paper. Tiny discs are punched from this blood-impregnated filter paper, placed on the agar disc and incubated overnight. If a turbid zone of growth surrounding the paper disc is observed, the test is positive for phenylketonuria.

A mass screening program for phenylketonuria to determine the value of Dr. Guthrie's new test is planned by the U. S. Department of Health, Education and Welfare, with the cooperation of state and local health departments. This plan for the prevention of mental retardation from phenylketonuria is to be carried on throughout the nation starting July 1, 1962.

Already more than half the State Health Departments have expressed a willingness to cooperate in this project. The Children's Bureau is distributing to health officials the information they will need for the testing procedures. Laboratory technicians are being trained under Dr. Guthrie's guidance for this mass screening program.

The value of the Guthrie test for screening purposes in the newborn period will depend upon how early the serum phenylalanine becomes elevated to the point of detection.

Among the many other questions which may be answered by this large scale undertaking are:

1. Is there a significant elevation of serum phenylalanine in the phenylketonuric individual before breast or bottle feeding is started?
2. How many days of food consumption and what quantities of breast milk or formula will be required to elevate the blood levels of phenylalanine in the newborn infant to the point of diagnostic significance?
3. Will the difference in protein content of the feedings become a factor?

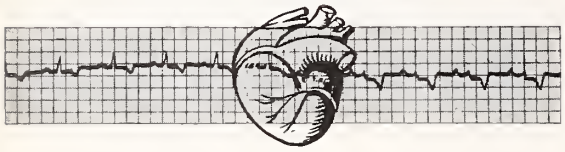
Physicians and lay people alike are awaiting the results of this ambitious experiment. ◄

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BIBLIOGRAPHY

1. Hsia, D. Y. Y.: *Inborn Errors of Metabolism*, Chicago, The Year Book Publishing Co., p. 358, 1959.
2. Centerwall, W. R.: *Phenylketonuria*, U. S. Department of Health, Education and Welfare, Children's Bureau, Publication No. 388, 1961.
3. Berman, P. W.; Graham, F. K.; Eichman, P. L.; Waisman, H. A.: Psychologic and Neurologic Status of Diet-Treated Phenylketonuric Children and their Siblings, *Pediatrics* 28:924-934, Dec., 1961.
4. Centerwall, W. R.: Phenylketonuria Screening Programs and Testing Methods, *Am. J. Public Health* 50:1667-1677, Nov., 1960.
5. American Academy of Pediatrics *Newsletter* 13:2, Feb., 1962.
6. Guthrie, R. L.: unpublished communication.

Electrocardiogram of the month



Presented as a regular feature of The JOURNAL, Electrocardiogram of the Month is a series of short talks on cardiovascular diagnosis and treatment, edited by the staff of the Robert M. Moore Heart Clinic of the Marion County General Hospital, Indianapolis.

Hyperkalemia

*CHARLES FISCH, M.D.**
Indianapolis

THE CLASSICAL electrocardiographic changes due to a rising plasma potassium were described in connection with an earlier report (*J.I.S.M.A.*, Feb. 1962). The purpose of this communication is to stress the frequent lack of correlation between the EKG and plasma level of the cation.

Figure 1 (reproduced previously as a part of *EKG of the Month*, February, 1962) demonstrates prolongation of the P-R interval, changing degree of intraventricular conduction delay, peaked ("tented") T waves, all features of moderately advanced disturbances of electrocardiographic pattern due to hyperkalemia. The plasma level of K was 9.9 mEq per L.

Figure 2. The P waves are absent, the QRS complexes irregularly spaced (? atrial fibrillation) and markedly prolonged. The ST segments are either depressed (e.g. 1, AVL) or elevated (e.g. V-1, V-2) and strongly suggestive of current of injury. The T waves are "tented" in V-4 only. It is obvious that the electrocardiographic disturbance is much more severe despite the fact that the plasma K level is somewhat lower, measuring 9.2 mEq per L.

Figure 3 obtained from a dog during uniform infusion of isotonic solution (155 mEq/L) of potassium phosphate. At the time this tracing was recorded the plasma K was 10.0 mEq per L. Note that there is no prolongation of the QRS, the QT is shortened, ST somewhat depressed and the T waves far from "tented." The striking abnormality, however, is the second degree heart block, a feature which is constant during infusion of K in dogs, but rarely seen in clinical hyperkalemia.

The explanation for the "paradoxical" behavior of the EKG in the three instances illustrated is due to the fact that in clinical hyperkalemia, usually encountered during uremia, the EKG is affected not only by disorders of potassium but also the remainder of ions as well as changing pH. On the other hand, infusion to animals may reflect a relatively "pure" instance hyperkalemia. Since the shift to any ion (such as K) invariably affects the remainder of the ions, the term "relatively pure" describes more accurately the effects of changing the level of a single ion.

* From the Robert M. Moore Heart Clinic, Marion County General Hospital and the Indiana University School of Medicine, Indianapolis.

Supported by the Herman C. Krannert Fund of the Indiana Heart Association and the Indiana State Board of Health, Indianapolis.

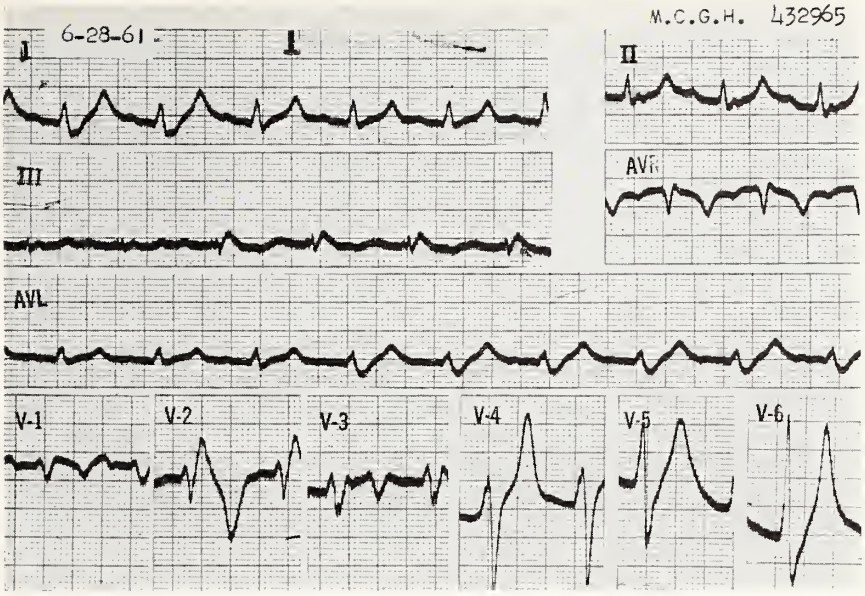


FIGURE 1

THIS TRACING obtained from a patient with hyperkalemia demonstrates moderately advanced disturbances of electrocardiographic pattern.

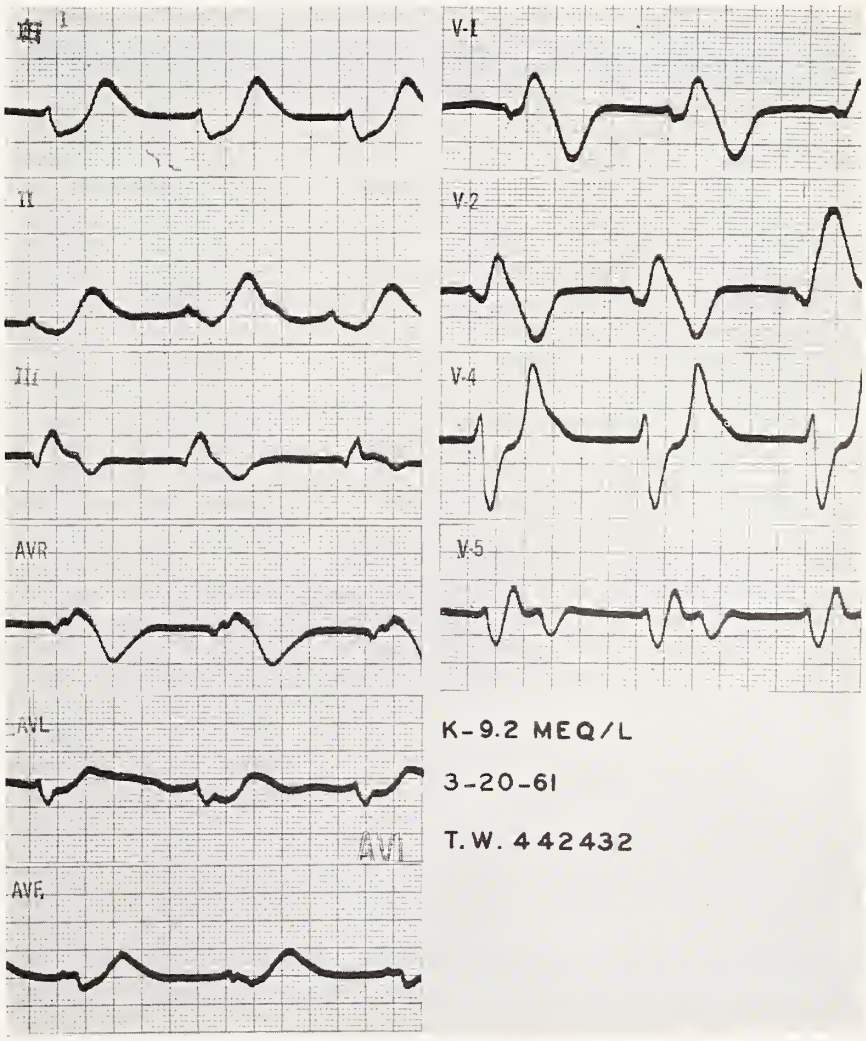


FIGURE 2

THIS TRACING reflects severe electrocardiographic changes due to hyperkalemia.

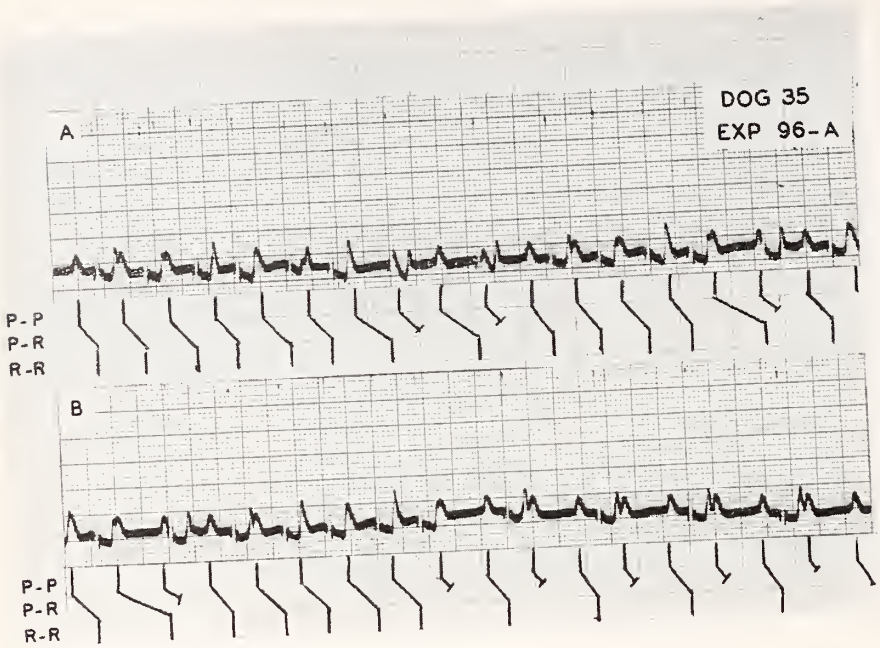
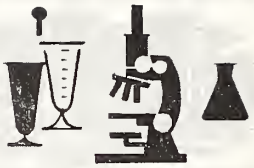


FIGURE 3
THIS TRACING reflects the effect of rising plasma potassium in a dog.

(We regret that the EKG in the April issue of *The Journal* was inverted by the printers. We apologize for any inconvenience this may have caused.)

Path-finder
PUBLISHED UNDER THE AUSPICES OF THE INDIANA ASSOCIATION OF PATHOLOGISTS



Laboratory Tests in the Evaluation Of Parathyroid Dysfunction

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Terre Haute

RECENT YEARS have witnessed a resurgence of interest in parathyroid function, climaxed by the isolation, purification and biochemical characterization of the parathyroid hormone in 1959. Unfortunately, no laboratory procedure is yet available for the accurate assay of parathyroid hormone levels in the blood or other biological fluids and the physician is dependent upon measurement of less specific parameters of parathyroid activity for support of his clinical impressions. In the succeeding paragraphs, an attempt will be made to present a brief critical summary of laboratory procedures which may be of value in the study of patients in whom parathyroid dysfunction is suspected.

I. Serum and Urinary Calcium

The normal range for total serum calcium varies somewhat with the procedure employed for its determination but is relatively independent of diet. In general, levels above 11 mg/100 ml. or below 9 mg./100 ml. are abnormal for adults. Urinary calcium is greatly influenced by calcium intake and on an average diet excretion levels usually range from 55 to 220 mg. per day. In primary hyperparathyroidism the ionized fraction of serum calcium rises and is usually, but not invariably, reflected by a rise in total serum calcium. Urinary excretion of calcium varies directly with the ionized serum calcium fraction and is more consistently elevated in hyperparathyroidism.

Renal failure, serum pH, serum protein levels and vitamin D intake all exert a profound influence on the serum level of ionized calcium, directly and indirectly, and on occasion will negate or even reverse the anticipated findings. In untreated hypoparathyroidism low serum and urinary calcium levels are usually found but borderline values for both will occasionally occur in patients with true parathyroid insufficiency.

II. Serum and Urinary Phosphate

In normal adults serum phosphate ranges from 3.0 to 4.5 mg/100 ml. and daily urinary excretion up to about 1.2 gm. depending upon diet. The phosphaturic action of parathyroid hormone, probably mediated through inhibition of renal tubular phosphate resorption, is well established and in most cases of primary or "secondary" hyperparathyroidism elevated urinary levels of phosphate will be found, accompanied by reduced serum levels. Conversely, the uninhibited renal resorption of phosphate in hypoparathyroidism will tend to produce hyperphosphatemia and hypophosphaturia. As with calcium, borderline values will oc-

COMMON LABORATORY FINDINGS IN PRIMARY PARATHYROID DISEASE AND SEVERAL RELATED DISORDERS

Condition	Serum			Urine		T.R.P. Test	Calcium Tolerance Test	Ellsworth-Howard Test
	Calcium	Phosphate	Alk. Phosphatase	Calcium	Phosphate			
Adults Normal - - - - - Children	9-11 mg. % 4.5-5.5 mEq/L	3-4.5 mg. % - - - - - - 4-7 mg. %	1.5-4 Bodansky Units - - - - - - 4-12 Bodansky Units	Varies with age, diet, etc. up to 220 mg. per day	Varies with age, diet, etc. up to 1.2 gm. per day	82-92%	Urine P ↓ Serum P ↑	—
Primary Hyperparathyroidism	↑	↓	→ ↑	↑	↑	60% or less	Urine P → ↓ Serum P → ↑	—
Hyperparathyroidism secondary to renal tubular acidosis, Faconi syndrome, etc.	→ ↓	↓	→ ↑	↑	↑		Urine P ↓ Serum P ↑	—
Hypaporothyraidism	↓	↑	→ ↓	↓ to 0	↓	92-100%	Urine P → ↑ Serum P → ↓	Urine P ↑ Serum P ↓
Pseudo-Hypaparathyraidism	↓	↑	→ ↓	↓	↓	92-100%	Urine P → Serum P →	Urine P → Serum P →
Vitamin D lack or resistance	→ ↓	↓	↑	↓	↓	—	Urine P → ↓ Serum P → ↑	—

Key: ↑ = increased concentration ↓ = decreased concentration → = normal or unchanged concentration

casionally be found in either dysfunctional state, particularly in the presence of renal disease.

III. Alkaline Phosphatase

Hyperparathyroidism is associated with increased alkaline phosphatase activity only when active bone disease is also produced and the latter is infrequent in this country, possibly due to generally high dietary calcium and adequate vitamin D intake. Normal to slightly decreased activity is encountered in hypoparathyroid states as a rule.

IV. Renal Tubular Reabsorption of Phosphate (TRP) Test

This procedure is employed to evaluate renal handling of phosphates and utilizes endogenous creatinine clearance as a reflection of glomerular filtration rate. Tubular phosphate reabsorption is assumed to be the difference between calculated glomerular filtration of phosphate and measured urinary phosphate content, and is expressed usually as a percentage. Normal range is 82-92%; however, considerable overlap of normal and hyperparathyroid values has been frequently encountered, so that only values below 60% should be considered significant. The test is of even less value in hypoparathyroidism because of the narrow range between 92-100%. Any degree of renal impairment will invalidate the results and it is known that creatinine clearance is not the most accurate measure of glomerular filtration rate.

V. Calcium Tolerance Test

This procedure is based on the principle that, in normal subjects, elevated serum calcium depresses parathyroid hormone excretion, with resultant rise in serum phosphates and decrease in urinary phosphates. Under standardized dietary conditions, patients are given an intravenous infusion of calcium gluconate and serum calcium, serum phosphate and urinary phosphate are measured at predetermined intervals. In primary hyperparathyroidism due to parathyroid adenoma, the hypercalcemia will have little suppressive effect on the neo-

plastic tissue and less than a normal rise in serum phosphate is generally found but phosphate excretion is highly variable.

In hypoparathyroidism little effect on serum or urinary phosphate levels would be anticipated because there is supposedly little or no parathyroid tissue to be inhibited. However, there is sometimes a marked increase in urinary phosphates which is difficult to explain but is of value as it does not occur in euparathyroid or hyperparathyroid states.

VI. Ellsworth-Howard Test

This procedure measures the effect on urinary phosphate excretion of a standardized dose of parathyroid extract, administered intramuscularly. In hypoparathyroidism urinary phosphate excretion is usually enhanced whereas little or no change is produced in pseudo-hypoparathyroidism.

VII. Other Tests

Several other procedures are available, such as: the cortisone test for hyperparathyroidism; calcium and phosphate deprivation tests; and determination of maximum tubular reabsorption of phosphate (TmP).

Conclusion

It should be immediately apparent from the foregoing that no single test of parathyroid activity is completely accurate or pathognomonic of parathyroid dysfunction. When employed and interpreted intelligently however, they serve as useful adjuncts to the clinical and roentgenologic findings. Generally anticipated laboratory findings in primary parathyroid disease and several closely related clinical entities are summarized in the table opposite. ◄

The Brand Name Is Here To Stay

I think I am safe in assuming that we do not want socialized medicine, or state medicine, any more than we want to do away with our American system of free enterprise. If this be true, then I can assure you that the brand name, or trademark, is here to stay. If you will stop to think about it a moment, you will recognize that our entire system of free enterprise is, in fact, based on brand names. Brand names enable the consumer to reward the product which is proved to be good—and the reward comes through repurchases of the product. If a product proves to be unsatisfactory, the consumer has the means of punishing it—by refusing to buy it again. And the means is, of course, his ability to identify the unworthy product through the trademark or brand name.—Theodore G. Klumpp, M.D., President, Winthrop Laboratories, to Massachusetts Medical Society.

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The Faulty ℞

AN ARTICLE in the December 18 issue of *Medical Economics* has attracted the attention of pharmacists as well as physicians, and well it might, since the subject is the faulty prescription, and as everyone knows, faulty prescriptions are a headache for doctor and pharmacist alike.

Entitled "How to Prescribe Yourself into Trouble," the article cites ten ways to court trouble and advises means to make it less likely to lose patients, alienate druggists, cause trouble for the druggist and avoid legal complications.

The first short-cut to trouble is illegible writing. The increasing complexity of nomenclature today makes it more and more important to write the name of a drug so that it will not be confused with one which it resembles. Grains will look like grams unless it is written out in full and carefully. The druggist is traditionally the town's expert on deciphering illegible writing, but he should not be required to do this in the case of potent drugs, or critical dosages.

Medical Economic's second troublemaker is failing to write the patient's full name and address on the prescription. Even though the patient may announce that he expects to visit the pharmacist and receive the medicine, instances have occurred in which a change of plans made it necessary and yet impossible for the druggist to deliver the goods. Name and address are an integral part of a prescription for narcotics; a habit of including this informaton for all drugs will avoid trouble.

Fault number three is not to indicate the patient's age. This is principally necessary to allow the pharmacist to check the dosage. This is his responsibility just as it is the physician's and he should not be deprived of the information he requires.

Troublemaker No. 4—Not writing out specific directions. Painful example: Doctor tells patient to take one teaspoonful every four hours, and marks the prescription "as directed." Patient takes four teaspoonsful every hour and later sues because of the results.

Number 5—Not mentioning the side effects or the symptoms that might mean the patient should stop taking the medicine. In this day of potent drugs these things should be mentioned and also placed on the prescription. The druggist will place them

on the label. The patient is many more times likely to heed the warning.

Item No. 6—Failing to write for the exact amount of medicine the patient will need. It is always best to avoid leftovers which may be taken later for another illness and do no good or do some harm. Leftovers may be dangerous for children, too.

Danger No. 7—Failing to specify the refillability of the prescription. All prescriptions should be marked as nonrefillable or refillable, and in the second choice the number of times to be refilled should be stated. Prescriptions for tranquilizers without limitations on refilling have been known to be passed around all over the neighborhood.

Pitfall No. 8—Not taking time to read the prescription after writing it. The old double-check will pick up an error every once in a while.

No. 9—Not keeping a record of each prescription. Several court cases have been lost because the doctor did not have a duplicate or other record of medication prescribed.

Headache No. 10—Failure to have the pharmacist read back the details of a telephoned prescription. This again involves the ease with which similarly spelled or similarly sounding drug names can be confused. The multiplicity of drug names today has exhausted the supply of sharply distinctive designations. More will probably sound and look alike in the future; pronouncing them carefully and spelling them over the phone will avoid trouble.

AMEF and Research Foundation Merge

THE AMERICAN MEDICAL Education Foundation and the American Medical Research Foundation merged into one organization effective January 1. The new entity will be known as the American Medical Association Education and Research Foundation (AMA-ERF). It will embrace the purposes of both its antecedents, and will continue to raise funds as before.

The new Foundation is now active in five programs: unrestricted financial assistance to medical schools, a medical journalism fellowship program, a research grants program for medical research workers, a study of perinatal mortality and morbidity and a study of continuing medical education.

Later in 1962 the Foundation will raise funds to assist in the financing of medical scholarships and for loans to medical students, interns and residents.

As was the case with the two original foundations all contributions to AMA-ERF will be tax-deductible.

Financial support will be sought from individual physicians, medical societies, the Woman's Auxiliary, philanthropic organizations, business organizations and the general public. The Foundation encourages its donors to designate which of the many projects are to be benefited by each contribution and in the case of aid to medical schools to designate which school is to be favored.

All medical societies are urged to expand their previous fund-raising activities and to acquaint businessmen and philanthropists with the programs. The Foundation will assist by a direct mail campaign and by press releases and stories on a national basis.

Individual physicians are urged to assist and cooperate in the fund-raising challenge to the greatest extent possible.

To Keep the Record Straight

A CERTAIN J. F. Gordon of the General Motors Corporation was quoted in the newspapers on October 18 as having said that, while highway traffic safety is "the biggest single part of the whole accident problem," it has "in recent years been particularly beset by self-styled experts with radical and ill-conceived proposals." These unnamed amateurs, taking up engineering "as a hobby," seem to think automobiles could be made intrinsically safe, that is, foolproof and crashproof. This, he said, "is completely unrealistic."

To keep the record straight, and in view of the unremitting *Medical Tribune* campaign for automobile safety, we thought of

identifying some of the unrealists. They include the American College of Surgeons, the American Association for the Surgery of Trauma, and the National Safety Council, working in collaboration since 1956 and pursuing a *Joint Action Program* published in 1958. As remarked by Preston A. Wade, "We, the surgeons of America, are extremely interested in the prevention of accidents and have entered into this association with great enthusiasm. We have found in our efforts to help the injured that, on many occasions, proper preventive measures might have obviated the serious injuries which we encounter."

We submit it is a valid interest.

But we agree with General Motors that no one *has* to have this attitude; the philosophy of *what must be,* can surely extend to the almost 40,000 deaths by automobile each year.

And that would evidently be the more realistic attitude or a less meddlesome one, for the automobile people explain that "We can only design into [the automobile] the greatest degree of safety that is consistent with other essential functional characteristics." You know, of course, what those "characteristics" are: It must sell, it must glitter, it must afford the poor man a kind of cheap, orgiastic daydream of incalculable distinction and potency, it must conceal the less reliable parts where they cannot be got at and fixed, and it must be lined with maces, adzes, and Iron Maidens—we grasp all that. We merely fail to see how they are "essential."

On the contrary, many valid suggestions have been put forward to eliminate the more gratuitous hazards of automobiles, and some of them have actually been adopted; but the fundamental problems of design are not, as hinted, an arcane science known only in Detroit—a reasonably bright high-school boy can write the equations governing lethal accidents. He may not know the more exquisite art of selling automobiles; but who does?

By now the "self-styled experts" have very nearly enough data to show how an automobile can be safe for human beings to travel in, however "radical and ill-conceived." Someone is bound to take an interest—if not the automobile industry, then perhaps someone else.—Reprinted with permission from *Medical Tribune*, Nov. 20, 1961.

New Hope for the Premature Infant

OF GREAT INTEREST to those responsible for delivery and care of premature infants whether it be obstetrician-pediatrician, in one person, or a team of two or more, is the work of R. H. Usher at the Royal Victoria Hospital, Montreal, in regard to the respiratory distress (hyaline membrane) syndrome, begun in 1957. The diagnostic criteria were "chest retraction, grunting and decreased air entry on auscultation, present during and persisting beyond the first three hours of life." The incidence of the condition was found to be 14% of all premature infant live births with a mortality rate on conventional therapy of 50%.

By means of electrocardiographic and biochemical methods it was found that these babies rapidly developed hyperkalemia (up to 9 mEq/L), high N.P.N. (40 to 90 mg/ml), and lowered pH of venous blood. These chemical abnormalities were found "related to the inability of the premature infant's kidney during the first three days of life to increase its excretion of solute or to conserve base."

To combat these metabolic side effects of asphyxia, Usher uses intravenous infusion of glucose and sodium bicarbonate from birth onward. This must be controlled by accurate pH determinations on the blood, and the present difficulty for most hospitals would lie in this category. Usher has "methods of doing pH in 0.03 ml. of blood." Undoubtedly, this requires modern, very expensive apparatus.

However, if this therapy proves to be as good as it now seems and can be made practical under working conditions found in an average up-to-date, American hospital, then our neonatal mortality rate will fall. At the Royal Victoria Hospital the overall neonatal

rate fell from 1.70 percent to 0.83 percent, and the premature infant mortality rate from 19.3 percent to 9.2 percent in three years (1958-60).

This work has been reported in *Pediatrics* and also in a Ciba Foundation Symposium on "Somatic Stability in the Newborn."

A.W.C.

Shotguns Again

MUCH HAS BEEN SAID in the past about "shotgun prescriptions." These were popular in the days of empiricism but became a subject of derision in our present "enlightened" age. However, our scientific enlightenment has proceeded faster, at times, in the area of new drugs, especially the synthetics, than it has in the area of physiological function and mechanism.

This is especially true in gynecological endocrinology where we have a large number of new and potent drugs available to practicing physicians who find it difficult to keep abreast of all the intricate and devious paths of research in endocrinology.

But the patient is there, before him, bleeding, or perhaps in pain; the tissue audit committee is breathing down his neck, or that of his surgeon friend (and perhaps just as well); so what to do? Perhaps that new combination of endocrines and assorted corticoids—a "shotgun" prescription?—well, yes, but let's try it. After this, and perhaps several such courses, the patient may arrive at the specialist's office—a man now puzzled not only by the original complaint but also by the possible added effects of the "shotgun" treatment. So he has to do a curettage, and as likely as not finds an endometrial polyp.

Other cases, of course, will be true endocrine problems, but time (and money) will be saved by taking greater care in the selection of particular endocrines rather than by use of "shotgun" mixtures.

A.W.C.

The Contraceptive Pill

TODAY'S TREND in world population has alarmed not only demographers, governments and parents, but everyone interested in the many fundamental aspects of living. In this problem, physicians not only have an interest but a responsibility. Admittedly there exists a need for some means of birth limitation and obviously the need varies with means of production of necessities of life in various localities as well as individual family situations. Natural and artificial methods of limiting human reproduction have been resorted to, with varying degrees of success, depending on the intelligence, attitudes and interest of different individuals and groups of people. All of these methods except abstinence and the "rhythm system" have met with some opposition from religious groups.

Quests for a Fountain of Youth and a pill to prevent conception have been an allurement to people for many centuries. While the geriatric hopefuls have met with complete disappointment, the reproducing group has some fulfillment of hope. Endocrine research has at last provided what has been heralded as a reliable contraceptive pill.

It is a well known principle in endocrine physiology that the estrogenic hormone of the ovary depresses the gonadotrophic activity of the anterior pituitary gland, thereby inhibiting ovulation; and estrogenic substances have been extensively used to produce anovulatory cycles in women for the relief of dysmenorrhea with somewhat satisfactory results. Why anovulatory cycles are not associated with dysmenorrhea has not been satisfactorily explained. Common complications of this therapy and also with the newer combined substances are, nausea, which occurs in about 10% of patients, and irregular or break-through bleeding.

With the discovery of potent progestin substances (which have the physiologic activity of the corpus luteum hormones), it was found that the administration of these steroid agents would also regularly depress the gonadotrophic activity of the anterior

pituitary and prevent ovulation. These substances, exhibiting progestin activity also tend to induce the growth of secretory or pregravid endometrium, and their mixture with the estrogenic substance has been found to prevent ovulation without frequent break-through bleeding and only occasional nausea as a complication.

The most generally used preparation is a combination of what is known as one of the 19—nor compounds and an estrogenic compound in the proportion of *(9-85 mg. of norethynodrel and 0.15 mg. of ethynylestradial 3 methyl ether in each 10 mg. tablet). Many pharmaceutical firms, no doubt, will be producing preparations with similar composition and physiologic action soon. These hormones singly or in combination have been quite extensively used for infertility, habitual abortion and other obstetrical and gynecologic disorders.

From a strictly advertising point of view the publicity given this drug as a contraceptive has been most extraordinary. It has been freely discussed in medical literature and has been the subject of leading articles in the many popular publications. The prescribed dosage is one tablet a day usually given at bedtime from the fifth to the 25th day of the cycle. It is now found that a 5 mg. tablet is effective, thereby reducing the cost of the medication. The tablets retail at 35 cents for 10 mg. and 17 cents for the 5 mg. tablet or about $3.50 for a months supply. Lower dosage results in more frequent break-through bleeding, which is usually controlled by increasing the dosage.

Extensive clinical trials in conception control on a wide scale with these substances have been carried out in Puerto Rico and also in this country, particularly in Los Angeles. The results of these wide scale clinical experiments indicate that when the pill is taken regularly as directed it was highly (99%) effective in preventing ovulation.

The attitude of religious bodies concerning this method of conception control has not been clearly defined, but it is unlikely that it will be acceptable to the adherents of some religions.

In the light of our existing experience, it can be stated that oral control of ovulation by progestin-estrogin medication is highly effective when used according to directions. Certainly the use of these anovulatory agents for contraceptive purposes is increasing. It is estimated that there are now over a million women taking these pills. There are some authorities who fear that such a profound alteration of the endocrine physiology may have some deleterious effects. While we know some of the immediate side effects of the agents are: nausea, break-through bleeding and weight gain, we do not know what the long range effects may be.

So far the use of these agents has had no effect on the fertility of women when their use was discontinued. What may be the effects of the prolonged use of these agents on the pituitary and ovaries, and how they may effect the menopause, and even what effect they may have on offspring, may take many years to determine. Will they increase or decrease the incidence of malignancy? At present it is the opinion of most obstetric and gynecologic authorities that the oral method of contraception is safe and effective. With such a world wide clinical test as these agents are being subject to, time will determine their effectiveness and safety. ◄

David A. Bickel, M.D.,
South Bend

* Enovid.

Editorial Notes . . .

The program to control air pollution is suffering from malnutrition and has a bad case of the intermittents. For such a serious public health problem the amount of money and energy spent is getting smaller while the problem is getting bigger. In 1960 the states spent only $1.6 million. Half of this was spent in California. Bigger, busier and more industrialized cities are the cause. Automobiles, factories, incinerators, asphalt roads are among the main culprits. Air pollution is a nuisance, and may become a

dangerous problem if environmental factors occur as happened at Donora, Pa., where 5910 persons were stricken and 20 died. Spotty and timid control measures have characterized the attack; more vigorous and unrelenting efforts are indicated in all large cities.

Wholesale prices of prescription drugs have declined for the third straight year and are now at their lowest point since 1949. This has taken place during the time in which, as everyone knows, the consumer price index has steadily risen. Dr. John M. Firestone, Professor of Economics at City College of New York and consultant to the U. S. Bureau of Labor Statistics, constructs the price index for drugs each year and compares it with price indices of other commodities as prepared by the Bureau of Labor. All the indices are figured from the year 1949 at which time a value of 100 was placed on them. The drug index is now 89.7, a fall of 10.3% since 1949. The Wholesale Price Index for all commodities except farm and food has risen 20% since 1949 and the Consumer Price Index has risen 26% in the same time. Who was that who claimed that drug prices are too high and getting higher?

The mortality rate and expectation of life in the United States both made a small change for the better in 1961. The Statistical Bulletin of the Metropolitan Life Insurance Company reports that the mortality rate for their Industrial policyholders, of which there are millions, reached a record low last year. Ten years ago the rate was 7.8 per 1,000. The rate fell sharply until it was 7.1 in 1955. After a rise in 1956 and 1957, due in part to influenza, it has declined in each of the four past years to the 1961 rate of 6.8. This produces an average length of life of 70.8 years, an increase of 0.3 years over 1960. The average lifetime of the policyholders has been in excess of three score and ten for each of the last seven years.

Research into the cause, prevention and treatment of the common cold has progressed to the point where researchers are encouraged to make a vaccine for trial use. The National Institutes of Health report that viruses are now known which have been identified as concerned with about 60% of the serious respiratory illnesses of children. This viral group is the basis for the vaccine. Research will continue while the vaccine is being investigated. Respiratory disease is the largest single disease problem of man. It has stubbornly resisted all efforts at determining its cause. Its effect is well known—it causes an economic loss of over $3 billion a year in the United States.

Dartmouth Medical School has been investigating the use of teaching machines. Preliminary reports are favorable. Teaching machines present to the student a series of questions worded so as to contain the information needed for the answer. The machine then presents the correct answer. The questions progress from easy to difficult and as they progress the questions are based on information developed by previous questions. In a course on parasitology the machines increased the learning efficiency 1.85 times over conventional methods. Further investigation will be done to discover what factors are responsible for the increased efficiency. Low-standing students benefited more than bright ones.

The dyes that identify drugs by colors are to be tested for safety again during the next two years. Twenty-six member firms of the Pharmaceutical Manufacturers Association, including four from Indiana, have contributed $300,000 for the purpose of exhaustively testing the nontoxicity of dyes which help to identify drugs and dosage forms. The government has certified the safety of all dyes for such purposes since 1938. The 1958 revision of the federal food and drug laws, however, sets up new and very comprehensive tests for color additives. The tests will be conducted by feeding enormous doses of the dyes to laboratory animals—1460 rats and 180 dogs. When the information has been obtained it will be released for use of industries other than the pharmaceutical industry.

Guaranteed-for-life health insurance policies and plans are multiplying so fast the

Health Insurance Institute has published its second catalog booklet, only 8 months after the first one was issued. The booklet published in July, 1961, listed 126 guaranteed-for-life policies available to the aged. These were provided by 66 companies. Since then there has been a 25% increase; the second edition lists 157 policies offered by 81 different companies. Many of the plans may be taken out by persons over 65 years of age regardless of physical condition. Some accept new applicants up to age 80 or even older. Some group-type plans accept people 100 or older. There are also plans for persons under 65, with provisions that the policy becomes fully paid at age 65 and protects the holder from then on. Additions are still coming in; the second booklet was slightly behind the times by the time it was printed. If anyone would like to request a copy of the booklet the address is 488 Madison Ave., New York, 22.

The results of polls taken by Congressmen among their constituents on the question of medical care for the aged have been published in the Congressional Record. Twenty-nine such polls have been reported during the past few months. Eighteen of the polls showed a majority of the constituents as opposed to medical care linked to social security; 11 of the polls (mostly from New York, New Jersey, Pennsylvania and Virginia) were in favor. The average support for the social security approach is calculated at near 40%, no more. The Gallup poll a year ago indicated a majority in favor of social security medical care. It was either taken in an area to produce the results desired by the poll-taker, or a lot of people have changed their minds in the past year.

"Calories Do Count" says the Food and Drug Administration. Their disagreement is with Herman Taller, M.D., who wrote a book "Calories Don't Count" to advance the idea that dieters must eat fat to lose weight; with the Cove Vitamin and Pharmaceutical, Inc. which markets CDC (Calories Don't Count) Capsules, and with Whelco Safflower Oil Capsules, which are recommended by Dr. Taller. Books and capsules have been seized in several stores in the east. The books come under the Food and Drug Act since, in this case, Taller's book was used to label and promote the capsules.

The AMA is publishing a handbook size volume of correct medical terminology, "Current Medical Terminology," to be revised every 12 to 18 months. The older "Standard Nomenclature of Diseases and Operations," has become excessively large and carries many outdated entries as well as listing the same condition under several names. The newer more compact book will eliminate duplication, will contain less than 500 pages and will sell for $2.00. Each disease listed will be defined, and the most characteristic disturbances and findings will be listed. The terms used were selected on a basis of accepted usage during the past three years.

The Tippecanoe County Medical Society maintains a continuing and invigorating contact with students interested in medicine by conducting a series of monthly educational meetings. Contact with the 20 high schools of the area is maintained through the Education Committee of the Lafayette Chamber of Commerce. Interested high school students, premedical students of Purdue University and the doctors are all enthusiastic over the monthly get-togethers which discuss study problems, medical ethics, give demonstrations of departmental work in a hospital, and explain general practice and medical specialties. One of the meetings this winter featured a debate on the King-Anderson bill between the president of the county society and an economics professor. Members of the Tippecanoe Society think that the program will work in any university or college town and perhaps just as well in any area with high school students. ◄





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SEARLE

Research in the Service of Medicine

Rx by Belli

C. K. HOPKINS
San Francisco, California

SAN FRANCISCO is the home of many amazing things, the Bridges—Gate, Bay, and Harry[1]—Chinatown, Coit Tower, two medical schools and Melvin M. Belli, attorney at law.

Mr. Belli has been as misquoted as any doctor and maligned more than most. The legal profession has from time to time raised an eyebrow over his methods, insurance companies go into complete shock at the mention of his name, and the medical profession devises new ills from which he may suffer. Any opinion of Belli is naturally violent. He is revered by his clients and doubly damned by his adversaries.

And so it was at a recent luncheon in a San Francisco Cafe, not itself unknown for its unique menu and method of serving, Mr. Belli was introduced to three interns[2] who were in San Francisco for a short stint.

After having observed the amenities and ordered lunch, one of the interns observed, "Mr. Belli, I am surprised to see that you don't have cloven hooves and horns but are really a rather personable fellow. The word pictures painted of you are, to say the least, colorful and not always complimentary. As you know, curbstone diagnosis is frowned on in our profession, but I wonder if you could be prevailed on to give us a little lunch-table law?

"For example, as doctors just beginning our professional career, could you give us a patent formula for avoiding suits for malpractice?"

Mr. Belli: Sure, for the price of lunch I'll give you some free legal advice. Practice good ethical medicine with both eyes on the patient and not one eye on the dollar and one eye on the patient and you will have less chance of being sued for malpractice. I won't guarantee that you won't be sued, even if you practice the highest type of medicine in the above regards, but (a) your conscience will be clear, which is quite an asset when you go to jury trial, and (b) you will have a little better chance of defending that malpractice suit.

Q. Under what, if any, circumstances can a patient bring suit against a physician for breach of contract? What need be done to prevent same?

A. If a physician makes a contract, he can be sued for breaking it. This is a very difficult and "trending" field. Let me illustrate: A 68-year-old husband and a 37-year-old wife *contracted* for a Caesarean section. The obstetrician actually made such a contract. But when delivery time came, he used his best medical judgment and without any negligence whatsoever, unfortunately delivered a dead fetus. The patient sued him and recovered $5,000 pain and suffering for breach of contract. Mind you, no negligence was claimed. Just a breach of "faith" or, of contract.

Sometimes you will tell a patient he will be "better off" with a new type of drug or surgical procedure. Be very careful about this. You may be making a contract. Some of these new decisions may have replaced the bedside manner with candor and I can conceive of cases where the doctor's conscience as well as his medical skill would be sorely tried. "Shall I tell the patient, or will he be better off not knowing?" The

[1] Well-known West Coast labor leader, not infrequently accused of Communist affiliations.

[2] The doctors concerned did not desire to release their names for publication of this interview.

doctor may be taking a chance in the latter situation if he does not advise the patient of all the risks. What the doctor *says*, or *fails to say*, may result in a representation that is a warranty or a contract.

Q. How far must a physician go in explaining possible complications of any given surgical procedure? For instance, is it necessary to explain that a certain small number of patients may die during or following tonsillectomy, or is this considered common knowledge, not requiring explanation?

A. A physician must be completely factual in his answers to a patient's questions, and this even where there is the rare possibility of untoward results. However, in the latter instance I do not believe that the doctor need unnecessarily alarm the patient or volunteer this information. It should be common knowledge that medical and surgical procedures entail some risks. But if the patient asks specifically, the doctor must answer specifically; and must not adroitly withhold information, either.

Q. When a patient refuses to submit to a recommended surgical procedure, even though the possible complications of his condition have been explained to him, is it adequate protection for the physician to have the patient sign a statement that he was advised to have the procedure and understands the possible complications without specifically naming the possible complications in the signed statement?

A. Suppose the patient won't sign anything? You can no more force him to sign a statement than you can do an unauthorized operation. I remember a situation that occurred where a Jehovah's Witness refused a blood transfusion and died. Definitely he could have been saved but he could not be transfused. Legally, ethically, and medically he had the right to die—or to live the way he wanted. Don't go around looking for "papers" to sign in situations like this. There are some situations, however, in which the doctor should write a letter to the patient stating what is his best advice and inviting the patient to "consult" elsewhere if he so desires. I would use this latter advice frugally, however.

Q. Suppose that for a given elective surgical procedure the common standard of practice in the community calls for the prophylactic administration of penicillin prior to the procedure. In the event of a fatal reaction to the penicillin is the physician in any way liable, even though he may have obtained a history of previous penicillin treatment without reaction?

A. Generally no, if there was adequate information that there was no former penicillin reaction, this should suffice. A history should be neither cursory nor only for the doctor's protection. It should be inclusive to enable the doctor properly to treat. The doctor must make the patient understand his questions so that there is a meeting of the minds—i.e. that the patient actually did have penicillin before and no reaction occurred. I wish doctors would take histories as detailedly as they did in their internship. Some doctors should see some lawyers take medical histories. They would be amazed at the details we ask for before we act. The first thing we lawyers ask of a doctor on deposition or on examination is, "Where are your records, Doctor?" and we do not take "They are privileged," or "My nurse keeps those," or "They are lost," or "Oh, you couldn't read them" for an answer. Don't ever try that on me—some have—you've read of the results in the newspapers.

Q. Suppose a physician working in a hospital emergency room sees a child with high fever and no other physical findings. The blood count, urinalysis, and chest x-ray are considered normal. The fever seems to respond to sponging and aspirin. The child is sent home but dies suddenly during the night. Can there be claim against the physician?

A. This question is a loaded one to me, but it illustrates my answer to the former question. You didn't give me *all* of the history. If the child was sick enough to be brought to the hospital, the mother must have intuitively sensed something that the doctor did not elicit on history. The doctor should have examined further. He did not do enough and he should have kept the child for observation, but, quaere, had he

kept the child for observation and had it been i.e. encephalitis, could he have saved the child's life? This doctor might sneak out on lack of proximate cause being shown, i.e. that the child's life could have been saved. But he is guilty of bad medical treatment in my *legal*, not medical, opinion.

Q. Are the records kept by a private physician admissible as evidence in malpractice suits? Can admission as evidence be denied because such records constitute a "self-justifying document"?

A. The records are admissible both on behalf of the doctor and against the doctor, provided your lawyer knows how to use them for you—or against you. *Moral: Keep good records.* The history taken by the doctor is admissible and extremely important, even though it is "hearsay" in one sense or "self-serving" in another. It goes to the jury for some particular purposes, among them your neck, if you don't keep good records.

Q. Do you feel "res ipsa loquitur" is fair; is not the physician assumed to be guilty at the onset?

A. Let me answer that question by asking you, "Do you think it is fair for doctors to refuse to testify against other doctors? Don't tell *me* that any doctor will testify. The rule of *res ipsa loquitur* I believe was particularly extended because of the medical "conspiracy of silence." Another point of entry, *res ipsa loquitur* should be looked at as giving the careful and honest physician the *opportunity* to explain. He should welcome this opportunity, particularly in the face of what appears to be a patently negligent result. *Res ipsa loquitur* wouldn't apply unless the result were patently negligent.

Res ipsa loquitur means "the thing speaks for itself."

If the surgery was so bad that the inanimate thing actually cries out "errancy," any honest doctor should be glad to answer it, and I would be suspicious of any doctor who didn't want to answer it.

Q. If a patient is injured in any way i.e. a boil in the area of a shot, what is your philosophy about recovery of damages? Do you feel all such injuries should result in payment?

A. Let me answer that question by giving you the philosophy of our office. I have probably turned down more malpractice cases than any other lawyer. It is true that I probably have seen more but definitely every untoward medical result is not malpractice in my book. But you fellows won't help educate lawyers in medicine. You're afraid that if you did more of them would sue you. The contrary, I am convinced, would prevail. It certainly has in our office.

Q. What is the result of conflicting expert testimony?

A. Another complaint that Mr. Belli has hit some poor chiropractor with only five Cadillacs for $250,000.

Q. How much protection from malpractice suits would the following release afford a physician?

"I, the undersigned, agree to having Dr. ———— perform corrective surgical planing on my face for post-acne scarring. I fully realize this is purely an elective procedure and that more than one treatment may be indicated.

"I further realize that the results are not always up to expectations, that hyperpigmentation or depigmentation may result, that additional scarring is possible, and that the exact percentage of improvement cannot be estimated.

"In addition, I release the above named physician from all further liability should any untoward result occur from the surgical procedure."

A. This guy ain't even speakin' good English, but when he gets through writing these releases he might get a job down in one of the brokerage houses writing prospecti on new stock issues.

Q. Another subject that always seems to come up, especially as concerns new physicians, is the matter of examining a woman while having another woman present. Could you discuss the matter?

A. In my practice, some doctors balk at examining a woman with a man present, especially me. You know, too, that the lawyer now has a right to be present at all stages of the examination. Specifically answering your question, definitely you should have another woman present. Good medical examination practice, to be legal,

does not follow the procedure in some other social circles where the madam leaves the room at the point of diagnosis.

Q. Would you discuss the legal problems that may affect the clinical clerk (junior or senior medical student) as he diagnoses and treats patients? How about interns and residents?

A. Money.

Q. As physicians starting out in practice, we'll probably acquire patients from other physicians. What do we do if we feel, honestly and sincerely, that the previous doctor did not give the best kind of care?

A. Why don't you both go to confession on Sunday?

Q. Is there any way a new physician can recognize the possible troublemaking patient (including narcotic addict)? What do you do if and when you do recognize, or suspect, one?

A. You treat your patients for their ailments, not just their personalities. You're neither an analyst nor a charmer; you're a healer. Part of your penalty for being a professional man is that you've got some burdens as well. Everyone you treat isn't as grateful or as sweet and smiling as that little girl whose leg you set after she broke it in the tricycle accident.

Q. How do you treat the accident or injury patient who refuses to let you do as comprehensive an examination as you would like?

A. You couldn't treat properly a person who couldn't be examined with ordinary care. If in your judgment you didn't have the opportunity, because of the patient's refusal to allow an adequate examination, and perhaps excepting an emergency, you just couldn't treat.

Q. What can you do if you feel your patient needs an operation (or other medical procedure) and you cannot get his, or his relatives' consent? How do you equate your conscience with these limitations? What if the situation is an emergency?

A. One simple answer: you do what has ordinarily been done. That means what has been done in the past by ordinarily good physicians with ordinarily good consciences and ordinarily good purposes. Emergencies legally do not require fine judgments. They do ordinarily require just as fine conscience, however, as normal procedures.

Q. To what lengths must the doctor go to protect himself from the maladjusted or the misguided patient?

A. Wouldn't you, Doctor, want to determine the basis for this maladjustment? Wouldn't you want to determine those things which you see about him which appear misguided? This man has a definite problem which needs medical attention either through the medical man or through the psychiatrist. Insofar as protecting yourself is concerned, if despite the foregoing you still do not want to take the patient, don't. But if you do, you will have to approach it with everything else that has been said in mind.

Q. Where is the liability if a patient disregards instructions and suffers untoward result?

A. If the instructions were proper, no liability would attach to the doctor.

Q. What is the doctor's position when the patient refuses recommended hospitalization but wants continued treatment. The doctor feels he cannot adequately treat patient on outpatient status, but does not wish to give up the case. Is he liable after having explained the hazard?

A. The doctor is obviously free to accept or reject any person who calls upon him for personal service. Perhaps the maladjustment is in and of itself symptomatic of organic psychogenic disturbance.

Q. A patient in the hospital is administered an investigational drug under the supervision of a qualified clinician, after being apprised of the fact and possible hazards of the drug and signing a consent form. No other specifically curative drugs for the condition are known. Other more or less satisfactory treatments are known but it is desired to evaluate the new drug. The usual animal studies have been done. The patient suffers an unforeseen reaction with ensuing suffering and/or permanent damage. Does liability exist?

A. Be very, very careful of any experimentation, even with the patient's consent, no matter how fully the patient has consented.

Q. A medication is ordered and properly

authenticated by a doctor. A nurse administers 10 times the dose with harmful effects. Does the doctor have any liability since the nurse is employed by the hospital and not by the doctor himself?

A. In almost every situation there would be no liability on the part of the physician; but (1) some doctors' writings are so illegible that he might get hung for poor handwriting; (2) the doctor, in common sense, should be careful to see that his orders are understood, and (3) in most situations he is responsible for the caliber of nurses, if he is face to face with her and has the appreciation that she does not have the capacity to carry out his orders. Don't be too sure that the nurse is the "agent" of the hospital and not your agent. Always be careful of doctor's oral orders.

Q. A patient's case is written up and published in a recognized medical technical journal. Specific points of personal identification are omitted and no identifiable photographs are used. In such cases, however, since they are unusual, the series of medical events, x-rays, and gross and microscopic photographs could belong to no other case. Need the patient's permission be obtained and if not, is there violation of privacy or any other liability? What if the case is one of a series of 20 similar ones presented?

A. In reproducing photographs or other material personal to the life of any of our clients, we have made it a point to have a release from the client, or to so block out the characteristics or features of this client so that recognition is not possible through that means. However, we have observed medical x-rays in our medical libraries and profuse illustrations in this field which would be beyond our personal recognition as to a person. To be on the safe side, the patient should be advised of the importance of sharing the medical information accumulated through the study of his case, satisfied of the scientific necessity for authorizing the use of his x-rays and gross microscopic studies, and asked for a release.

Q. Is there an implied or actual warranty involved when we undertake a case?

A. This is a real thought provoking question. In the transfer or sale of a commodity there is an implied warranty. Apparently, historically there is no implied warranty in medical services. The court instructs that a doctor is not a warrantor of his services. This means he is not absolutely liable in the absence of negligence. However, the doctor could become an *express warrantor*. This has already been discussed. To become an express warrantor all he has to do is to make a contract, i.e. say "if you take a spinal anesthesia, nothing will happen to you."

Q. It would seem then, after all, Mr. Belli, that there is a place for you in the scheme of things, but that unfortunately this place has been created by doctors who have ignored their legal as well as moral responsibilities, which is to keep their patients adequately informed. Could it then be said that your mission is to make the doctor aware of his legal responsibilities as well as his medical obligations, "res ipsa loquitur"?

A. I would implore you to wait five years before I answer that and see the results that I achieve in medical legal teaching at that time. However, I want you to remember that despite my teaching and protestations I don't persecute doctors; I do vehemently protect my clients. Reprinted with permission from *The New Physician*, April, 1960. ◄



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...for elderly patients with anorexia, asthenia and general debility—
MARKED IMPROVEMENT IN APPETITE, STRENGTH AND SENSE OF WELL-BEING

Fourteen patients, age 66 to 77, treated with Winstrol, usually in a dosage of 6 mg. daily, for various periods in order to correct underweight, weakness and chronic fatigue. Marked improvement occurred in appetite, sense of well-being and strength; almost all patients gained weight.

...for patients with osteoporosis and arthritis—
RELIEF OF PAIN, IMPROVEMENT IN MOBILITY

Twenty-one patients with arthritis treated with Winstrol for pain and limited mobility due to osteoporosis. With few exceptions, dosage was 6 mg. daily; duration of treatment varied from a few weeks to 6 months. In 8 patients relief of symptoms was excellent and in 6 moderate. Of the 7 persons in whom no relief was obtained, 5 had received treatment for less than one month and some had been given doses below 6 mg.

...for patients with malignant disease—
NOTABLE WEIGHT GAINS, INCREASED APPETITE AND SENSE OF WELL-BEING

Twenty-six patients, mostly women, weak, emaciated and seriously ill, were administered Winstrol in dosage of 6 mg. daily for periods extending up to 14 months (average 6.7 months). Notable weight gains occurred. Patients showed increased appetite, alertness and confidence, better appearance, increased mobility and tolerance to pain.

...for patients with chronic, non-malignant disorders—
IMPROVEMENT IN WEIGHT AND GENERAL ACTIVITY, INCREASED SENSE OF WELL-BEING

Eight patients with advanced tuberculosis, bronchopulmonary disease, nephritis and ulcerative colitis treated with 6 mg. of Winstrol daily for from 3 to 4 months. Gains in weight varied from 6 to 27 pounds with increased sense of well-being and improvement in general activity.

...for undernourished, underweight children and adolescents—
NOTABLE IMPROVEMENT IN APPETITE AND OUTLOOK, MARKED INCREASE IN WEIGHT AND HEIGHT

One hundred and twenty children, age 1 to 11 years, underweight and in poor health, were given Winstrol for several months. Majority received daily dosage of from 2 to 4 mg. In nearly all, appetite was improved. Over 70 per cent showed significant gains in weight of from 5 to 17 pounds.

DOSAGE: Usual adult dose, one 2 mg. tablet t.i.d. just before or with meals; children from 6 to 12 years, up to 1 tablet t.i.d.; children under 6 years, ½ tablet b.i.d. Available in bottles of 100 tablets.

Complete bibliography and literature available on request. Before prescribing, consult literature for additional dosage information, possible side effects and contraindications.

*animal data

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What to do Until the Doctor Arrives

MANY PERSONS injured in accidents die before medical help can arrive; they die because no one at the scene knows first aid.

This is an age when Red Cross first aid training is as important to a family as life insurance.

What value can be placed on first aid training when as a result of this training a mother saves her child's life by being able to give mouth-to-mouth resuscitation, or a father who knows the proper treatment of burns, breaks, and control of serious bleeding at the scene of a highway or factory accident?

In the event of a nuclear attack, thousands of persons would suffer from multiple burns, fractures, and burns. Professional medical help might not be available in some areas for hours or even days.

The free standard first aid course, offered by many American Red Cross chapters through-out the state, is a five week, 12 hour course which includes the latest technics in treating cuts and burns, methods of transporting injured persons, giving artificial respiration, stopping severe bleeding, and what to do in other emergencies before the doctor arrives.

Importance in Disaster

Red Cross-Civil Defense leadership says that more lives could be saved in a national disaster by a knowledge of first aid on the part of every person over 12 years of age than any other measure.

Another free Red Cross course which has proven so valuable to homemakers is Care of the Sick and Injured. Thirty-two skills and technics are taught including how to give bed baths, keep a record of the patient's temperature, pulse and respiration for the doctor, prepare liquid and soft diets, and how to improvise bed rests, bed trays, and other items.

In a major disaster, one person trained in a Red Cross Care of the Sick and Injured course could be of primary importance in the recovery of injured or sick members of her family.

The Red Cross Mother and Baby Care course taught by volunteer registered nurses has proven very popular in the sections of the state where it is offered. In this course, expectant parents, grandparents, and other interested persons learn about the first year of the baby's life and the latest information available on bottles and clothes.

For more information on free Red Cross classes in your community, call your local Red Cross. ◄



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Medical Panorama

These Things Do Happen

A. W. CAVINS, M.D.
Terre Haute

Now and then a "rarity" turns up in medical practice, which on further inquiry is found to be less rare than previously opined. A case in point is reported in the *Wisconsin Medical Journal*, December, 1961; a multipara eight days past her expected date of confinement with symptoms of toxemia which did not yield to treatment, —and the treatment was entirely adequate and up-to-date for toxemia of pregnancy. After transfer from a hospital in a smaller community to the Milwaukee Hospital, life was maintained for 23¼ hours. At autopsy the main finding was brain tumor, left frontal lobe—a fibrillary astrocytoma. Cogent comments from the case report follow:

The case presented illustrates the ease with which primary central nervous system disease, in this case brain tumor, can be confused with toxemia when it occurs during pregnancy. This confusion in diagnosis, with resultant delay in treatment, may be of critical importance in the outcome of the patient with both a pregnancy and an intracranial neoplasm. Had the possibility of brain tumor been considered and investigated in this case, the outcome for mother and fetus might have been different.

Diagnosis

An awareness that brain tumor and pregnancy may co-exist is the most important step in making the diagnosis. This is more difficult than might be supposed, because of the frequency with which pregnancy with toxemia is seen, and the comparative rarity of brain tumor during gestation. However, the problem is not seen as rarely as might be supposed since three cases occurred in the state of Wisconsin during 1960, including the case reported. The other two cases, also fatal, were an astrocytoma and a cerebral ependymoma. When the similarity of signs and symptoms encountered in the two conditions is considered, the ease with which the diagnosis may be missed is more readily understood.

The problem of differential diagnosis in this particular case was complicated by the persistent edema which had been treated by the prolonged use of a diuretic agent administered over a period of four months. Because of this, the semicomatose state of the patient on admission, and the relatively minor elevation of the blood pressure, the diagnosis of hypopotassemia was a primary consideration.

Perhaps the laboratory findings in the case presented provided a clue to the correct diagnosis which was overlooked. The pH recordings of 7.48 and 7.42 are inconsistent with what might be expected, especially in view of carbon dioxide combining power of 17.8 mEq. per liter. Gambino states that "usually an unexplained severe alkalosis is related either to peritonitis or to a serious central nervous system lesion."

If the diagnosis can be made, treatment consists of prompt surgical removal of the brain tumor, without regard to the stage of gestation.

Three cases of this kind occurred in Wisconsin in one year. No doubt Indiana has had, or will have, her share of these. ◄



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...or, to be exact, a total of 2,106 ounces in his first two years. And how much he'll need during his first twenty years would have to be measured by the truckload, because the need for the nutrients contained in Florida orange juice continues throughout life.

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© Florida Citrus Commission, Lakeland, Florida

Doctor Diplomats

More News from the Congo

The editor of *The Journal* has received a letter and photographs from Dr. James M. Jay currently serving as a member of the Congo Protestant Relief organization.

Dr. Jay, Indianapolis, and Dr. Gordon Cook, South Bend are both stationed at Kimpese, in a 300 bed hospital which they report is one of the best hospitals in the Congo. In addition to Drs. Jay and Cook there is an anesthesiologist, a general surgeon, a G.P. and a pediatrician; there are also about six American-trained nurses and a laboratory technician.

Kimpese, which is about three hours drive from Leopoldville, is an African training center. Presently there are 60-80 nurses undertaking training. The three-year course, says Dr. Jay, is far below the standard of training given in our schools here, but steady efforts are being made each year to improve the quality.

The medical wards offer a variety of cases as Dr. Jay explains in his letter, cases ranging from pneumonoccal meningitis to liver diseases, with naturally many cases of parasitic infection.

Dr. Jay concludes his letter thus: "I can thoroughly recommend this type of service to any doctor back home, and they are certainly in need of more doctors out here. It is hard to express the appreciation the African natives show to the American doctors." ◄



FIGURE 1

FOUR CPRA DOCTORS, from left to right: Dr. Gordon Cook, South Bend; Dr. Castle, Fort Worth, Texas; Dr. Robert Yumau, Kansas City, Kan.; Dr. James Jay, Indianapolis.

Physicians interested in volunteering for such service overseas are asked to write directly to the AMA Department of International Health, 535 N. Dearborn St., Chicago 10.



FIGURE 2

A CASE OF SMALLPOX prior to arrival in haspital, the patient has been treated by having dirt rubbed aver the lesions.



FIGURE 3

DR. COOK, af South Bend perfarming a laparatamy.



FIGURE 4

DR. JAY af Indianapalis examining a patient with a large goiter at Kimpese.

10 HOSPITALS THAT USE FILTER QUEEN AND 10 REASONS WHY THEY DO*

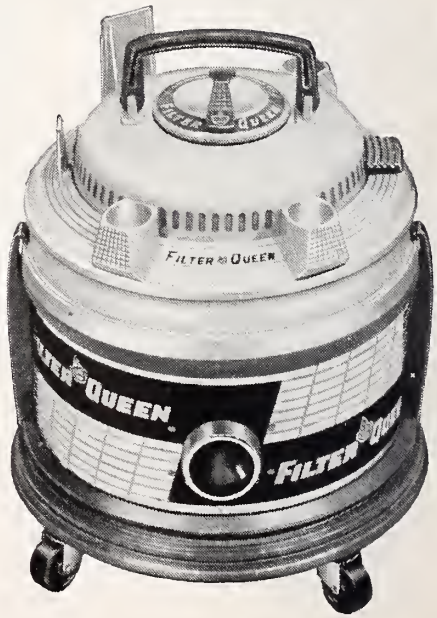
1 Worcester City Hospital
Worcester, Mass

2 Fresno Community Hosp.
Fresno, California

3 Los Angeles Cty. Gen. Hosp.
Los Angeles, California

4 Massachusetts Mem. Hosps.
Boston, Massachusetts

5 Port Huron Hospi
Port Huron, Mich



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Inadequate Technologists*

THERE ARE MEDICAL technologists and there are medical technologists—and some times it is hard to tell the difference between those who are adequately trained to make the diagnostic tests in hospitals and medical laboratories and those who are not. Professional organizations and hospitals are aroused at the danger.

This situation strikes at the safety of medical service because a wrong laboratory test may mean death of a patient or delay in essential treatment.

Information gathered by a national professional journal, *The Modern Hospital*, 97:98, 1961, shows that there are 16 commercial medical technology schools that do not have as high entrance requirements or rigorous examinations as do more than 700 schools of medical technology approved by the American Medical Association.

The 16 commercial and private medical technology schools, through an organization known as the American Medical Technologists and an array of related groups, based mostly at Enid, Okla., are offering to assist hospitals, clinics and other employers of medical technologists. Hospital administrations are said to have difficulty differentiating between the MT awarded by this group and the MT (ASCP) registration insigne of those trained by an AMA approved school. ASCP indicates that the designation was issued by the Registry of Medical Technologists of the American Society of Clinical Pathologists with headquarters in Muncie, Ind.

The report tells "what hospitals may be getting when they hire graduates of some commercial medical technology schools." In some cases newspapers have carried descriptions of the practices of commercial medical technology schools in their cities. This happened in Cleveland; and in Minneapolis, schools have been investigated by a committee appointed by the Minnesota Department of Education.

These schools, although mainly in cities, draw students largely from rural areas. Tuition ranges from $620 to $1,395 cash, or in some cases more, if paid by the month.

Parents signing school contracts presented by salesmen called "registrars" are often liable for one-fourth of the total tuition in some cases even if the student never goes to school after making the down payment.

An estimated 1500 to 3000 graduate from the commercial medical technologist schools each year and some individual schools claim as high as 5000 and 6000 graduates over a period of years.

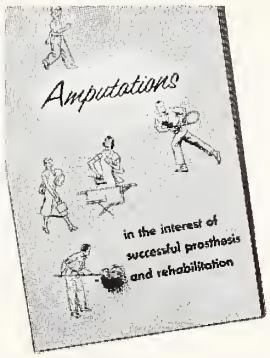
The commercial schools mainly require high school graduation or its equivalent but in some schools the "equivalent" seems to mean that the student has enough money to meet the tuition, the article says.

Qualified medical technologists with the

* A summary taken from *The Modern Hospital.*

degree of MT (ASCP) must have three years of college plus a fourth year of clinical training in a hospital school of medical technology headed by a pathologist and approved by the American Medical Association. Board examinations are given semiannually for this degree by the Registry in Muncie.

National interest in adequate training for medical technologists is fostered by the National Committee for Careers in Medical Technology, 1785 Mass. Ave., N.W., Washington 6, D. C., an organization sponsored by the American Society of Medical Technologists, the American Society of Clinical Pathologists and the College of American Pathologists. In every state the committee has recruiting and scholarship representatives who cooperate with the medical and hospital professions. In addition, the committee gives certificates of merit at regional high school science fairs and at the National Science Fair-International. A major award that consists of a summer job at the Armed Forces Institute of Pathology will be given at the next national fair in Seattle in May. ◄



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Medical Careers in the Pharmaceutical Industry

D. MEAD JOHNSON*
Evansville, Indiana

THE DRAMATIC GROWTH of pharmaceutical companies that has accompanied the development and marketing of a host of products making important contributions to medical therapy has led to a considerable need by the pharmaceutical industry for qualified physicians. Physicians in industry today play an indispensable role. They have positions of honor. Their contributions, both to the products of industry and to medicine and education in general, are well-known. Their professional standing is unquestioned.

It was not always so. In the early days, it was a practice on the part of some pharmaceutical companies to hire physicians who, for one reason or another, had inferior qualifications. Such doctors were naturally regarded with something approaching contempt by their professional brethren. This has changed. The standards



Some early physicians in industry were looked upon with contempt by their professional brethren

of industry are now high with the development in the industry of positions requiring physicians of high motivation, integrity and ability.

Elements of a Typical Company

Pharmaceutical companies carry out intensive research programs including basic research, product oriented research and clinical research. An important part of their time and talent resources also go into the major activity of marketing which encompasses marketing research, contributions to product development, advertising, a wide spectrum of services and, of course, selling. Each company also has other important activities including those coming under the heading of manufacturing, finance, personnel, public and professional relations, distribution and packaging. Most companies of any size also have a medical department. Sometimes the medical department may be a part of the research activity. Sometimes it falls under marketing.

At Mead Johnson & Company, we have a Corporate Medical Department which reports to the president. We feel this reporting relationship is immensely helpful since it insures that the medical policies of Mead Johnson & Company will be carried out in every division and in every activity. In addition to the Corporate Medical Department, each of our marketing divisions has its own Medical Department subject to the professional and ethical rulings of the Corporate Medical Director.

Duties of Physicians

Some physicians, usually those who possess a Ph.D. degree in addition to an M.D. degree, plus an academic background, usu-

* President, Mead Johnson & Company, and a member of the board of directors of the Pharmaceutical Manufacturers Association.

ally find their best role in the research division. Sometimes they conduct research in chemistry. In other instances, they are pharmacologists. Other physicians more interested in human medicine supervise clinical research on prospective products or conduct clinical research themselves. Still other physicians find administrative positions in the research division.



Some physicians in industry conduct research in chemistry

Physicians who have spent some time in practice (and who may or may not possess an academic background) frequently prefer to be a member of the medical department. The physician of a medical department tends to be a generalist in the broad sense of the term, to wear many hats—the hat of the physician, administrator, public speaker, teacher, writer, and researcher. Such physicians carry out a broad program of clinical research on products that have been marketed and have passed Food & Drug Administration approval. They provide medical advice to marketing. They supply medical opinions regarding new and prospective products, as well as on products already marketed. They review advertising and all other promotional material for medical accuracy, propriety, and adherence to ethical standards and policies. In most companies the authority of the physician in such matters is final, subject only to the veto of top management. In practice, such veto is infrequently, if ever, exercised.

Physicians of a medical department are expected to maintain and expand their professional contacts with individual physicians and with organizations of physicians. Overall, they are expected to maintain and improve the company image in the minds both of physicians who prescribe and consumers who use company products. They contribute to product development and product improvement on the basis of their background in practice and continuing contact with practitioners of medicine. They have an important role in maintaining the safety in the use of company products. In conjunction with this, the complaint section may be placed under the administration of a physician.

Service in Medicine

The physician of the usual medical department has many activities that revolve about the practicing doctor. Many companies provide special services designed to help doctors be better doctors and to render better service to their patients. Some of these activities, which we call the "Service in Medicine Program" at Mead Johnson & Company, are directed to members of the allied professions, such as dietitians, nurses, hospital administrators. In general, the service activities of a company fall under the heading of education, consultation, and research. Physicians, both of the research division and the medical department, frequently play key roles in the development of scientific exhibits. Many physicians in industry are called upon to give lectures to physician groups.



Physicians in industry review advertising and all other promotional material

Physicians from our company, for example, have presented lectures in over half the states and in eight countries, and in two languages, over the past decade. Most companies make it possible for their physicians to maintain academic connections and participate actively in teaching of medical students. Many companies permit their physicians to spend approximately ten percent of their time in the actual practice of medicine, usually in a company or charity clinic. In addition, physicians find the pharmaceu-

tical company an ideal environment for the writing of textbooks and scientific articles.



Some physicians in industry find time for the writing of textbooks

Awards for graduate training and awards for research are usually carried out under the administrative guidance of physicians. Some medical departments have active literary services, and a physician is usually the overall supervisor of such services. The reprint file of our medical department, for example, contains over 18,000 items.

Bibliographies are prepared on any medical subject of physicians, nurses, and dietitians. On short notice, bibliographies can be supplied on 500 subjects. Some medical departments feature a scientific information center, whose services can be utilized not only by physicians, but by other departments within the company. Physicians in industry are in an ideal position to help develop seminars on such subjects as adolescence, allergy, phenylketonuria, and the like.

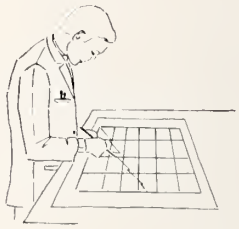
Provision of Medical Guidance

Physicians develop medical policies for their company, subject to the approval of top management. Management looks to its physicians for professional guidance in every aspect of product development and marketing. I like to think of the physician in industry as a projection of the medical profession into the company, who has the deepest respect not only for the welfare of the company, but for the welfare of the practicing physician, and for the health and well-being of the ultimate consumer, the patient. The physician in industry should never be placed in the position where he must compromise his professonal ethics.



No physician in industry should ever be asked to compromise his professional ethics

Whatever direction the activities of the physician in industry takes, he will find innumerable opportunities awaiting him to exert a tremendous influence for good on the practice of medicine. He may well conclude that he can accomplish as much good and be responsible for as much progress in medicine as though he were an eminent practitioner or a leading academician.



Physicians in industry must frequently chart their own courses

Necessary Qualifications

The qualifications required for a physician who takes a position in industry will vary, of course, with the position in question. In general, the physician who has been active in practice will find that he must be somewhat less of a rugged individualist and more of a team member if he is to succeed in industry. He will also find that frequently his specific activities are not laid out precisely for him, particularly in a growing company. He must chart his own course.

Ideally, he should have something like the following group of characteristics: (1) superior drive, (2) enterprise, (3) creativity, (4) good to high scientific interest, (5) good to high literary interests, (6) excellent writing ability, (7) adequate to excellent speaking ability, (8) a well-developed sense of ethical and moral values, and (9) the courage of his convictions.

Companies are just as interested in having a physician who comes with them make a success of his job as is the physician

Continued

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If you are now prescribing the newer corticosteroids— such as triamcinolone, betamethasone, paramethasone or another brand of dexamethasone, because of reduced risk of sodium and fluid retention, potassium depletion, or disturbance of glucose metabolism—you can obtain all of these benefits with HEXADROL, at marked savings—yet with complete assurance of unsurpassed quality and therapeutic effect.

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himself. For this reason, they expose the applicant to a carefully worked out battery of psychologic tests. In addition, they endeavor to have him get as familiar as possible with the company and its operations so that he can know what he is getting into. They are also anxious to have him meet the personnel with whom he will be working. If they feel that his personal characteristics do not fit him for a position in the company in question, they will be frank in telling him so.

At the present time, there is a fairly wide-spread demand for physicians of competence in the industry. Positions are available for physicians from general practice and from every specialty. In general, the educational and practical background of a physician is less important than his personal traits and abilities.

Conclusions

The pharmaceutical industry takes great satisfaction in joining physicians and members of the allied professions in contributing to the maintenance and improvement of the health of the nation. Qualified physicians who associate themselves with the pharmaceutical industry can be sure that they will play a role in molding the shape of things to come in medicine. ◄



Qualified physicians can be sure they will play a role in molding the shape of things to come in medicine



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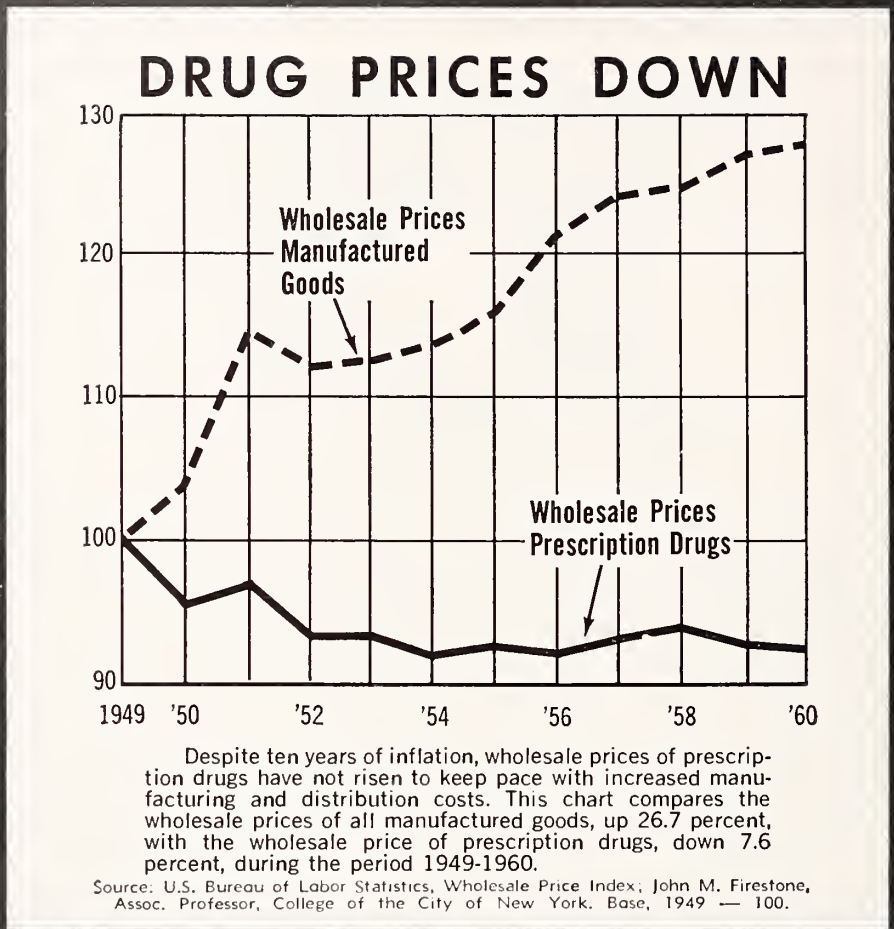
Before prescribing, consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.

References: 1. DeNyse, D. L. : M. Times *87*:1512 (Nov.) 1959.
2. Gruenberg, F.: Current Therap. Res. *2*:1 (Jan.) 1960.

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The facts on Drug Prices:



Despite ten years of inflation, wholesale prices of prescription drugs have not risen to keep pace with increased manufacturing and distribution costs. This chart compares the wholesale prices of all manufactured goods, up 26.7 percent, with the wholesale price of prescription drugs, down 7.6 percent, during the period 1949-1960.

Source: U.S. Bureau of Labor Statistics, Wholesale Price Index; John M. Firestone, Assoc. Professor, College of the City of New York. Base, 1949 — 100.

Over the past two years, there's been a lot of talk in the press about "the high price of drugs." You've read it yourself—and probably many of your patients have asked about it.

What are the facts?

According to a recent study by Professor John M. Firestone, economist of the City College of New York, manufacturers' prices on ethical drugs actually *declined* 7.6 per cent between 1949 and 1960. (And preliminary 1961 figures indicate a further drop.)

In contrast, the wholesale prices of all manufactured goods rose 26.7 per cent during the same period.

The graph shows this contrast at a glance.

The 12 years it covers marked the introduction of many of the most valuable drugs of the modern armamentarium: the broad-spectrum antibiotics, the steroid hormones and their analogues, the oral diuretics, the ataractics and psychic energizers, and the hypotensive agents.

That so much fruitful research was carried out *while prices were simultaneously being lowered* is one of the least-known, yet most remarkable aspects of the pharmaceutical revolution of our time.

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WE'VE MOVED

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Headquarters, The Indiana State Medical Association

The Journal of the Indiana State Medical Association

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The target date is here.

The moving vans have rumbled off, transporting the Headquarters Office of the ISMA to the new building at 3935 North Meridian Street.

Although official dedication of the building will be sometime in July, the work of your Headquarters Office had to go on. Some thought they would be typing right in the vans as they moved us, but the move was quick and easy; work was hardly interrupted at all.

The need for the new building has long been recognized by members who have been acquainted with the operation of the association.

But now that need has been answered and the move accomplished.

The building committee for the new offices was appointed in January, 1959.

The new building was authorized by the House of Delegates in October, 1960.

A lot was purchased that same year and the firm of Lennox, Matthews, Simmons and Ford, Inc., selected as architects.

The long, drawn-out litigation over rezoning came to an end in June, 1961, with the granting of the complete rezoning by the Marion County Council.

Dr. Ralph Everly, chairman of the building committee, told the ISMA Council Meeting in April, 1961: "This means that there are now no legal obstacles in our way towards progressing with the construction of the new state office building for our Association at this site."

There may have been no legal obstacles but there were plenty of other barriers.

What followed in the year from October, 1960, when the building was authorized, to the following October, 1961, only the men involved could relate.

The many long hours of planning, dis-

cussing, arguing and agreement must total in the thousands.

A large basement area was eliminated, a goodly chunk of the floor area was cut off and the type of construction that would permit the building of additional floors in the future was discarded.

In reducing the floor area, the length of the building was shortened but space was left for the construction of an additional wing should it be found necessary in the future.

The contracts were finally signed and actual construction began August 29, 1961.

We quote from the building committee report to the House of Delegates Meeting, October, 1961:

"By next April, we hope that we can hand you your new home, ready for occupancy, and that we will be able to say 'Here is the result of our efforts . . . we have built the best we could with the money we had to spend . . . and we hope that it pleases you, and will serve as a functional asset in the further development of our fast-growing association.'" ◄

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Surgery of Colon & Rectum, One Week, June 4, Sept. 17
General Surgery, One Week, Sept. 17
Vaginal Surgery, One Week, June 25, August 6
Obstetrics, General & Surgical, Two Weeks, July 16
Pain Relief in Childbirth, 3 Days, July 11
Proctoscopy & Sigmoidoscopy, One Week, July 16
General Practice Review, One Week, October 8
Advanced Electrocardiography, One Week, June 18
Gallbladder Surgery, 3 Days, June 18, October 8
Surgery of Hernia, 3 Days, June 21, October 11
Neuromuscular Diseases, Two Weeks, June 11
Hematology, One Week, June 4
Advances in Medicine, One Week, October 15
Blood Vessel Surgery, One Week, October 22
Fractures & Traumatic Surgery, Two Weeks, June 11, Oct. 1
Diagnostic Radiology, Two Weeks, October 29

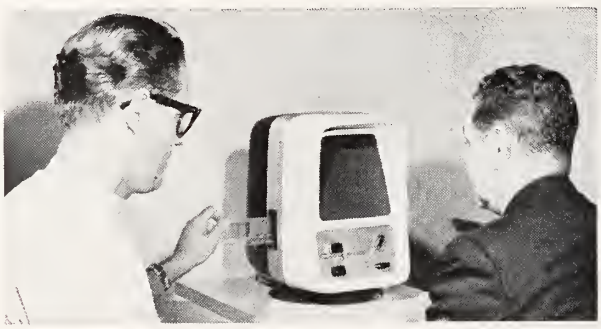
Information concerning numerous other continuation courses available upon request.

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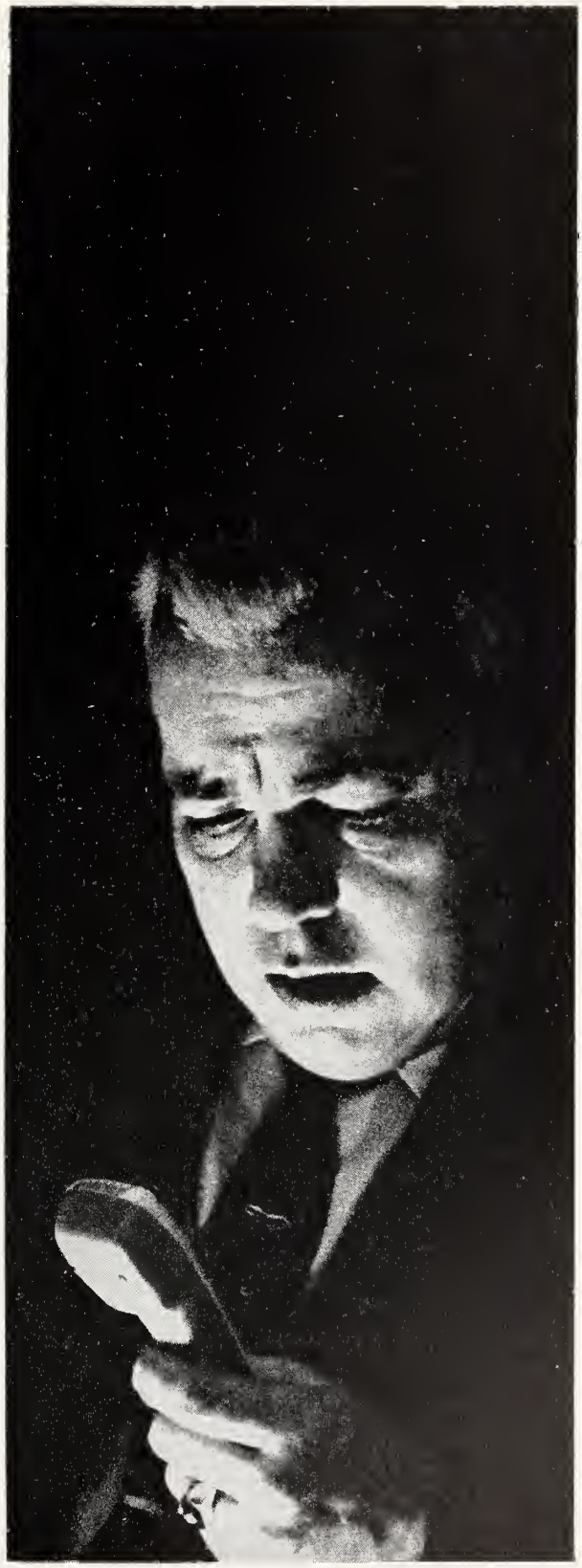
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Day and night– less wheezing, coughing, labored respiration in chronic bronchitis and emphysema

New Isuprel Compound Elixir is a balanced expectorant bronchodilator. It contains potassium iodide to promote expectoration and relieve dry cough. Its three bronchodilators, Isuprel, ephedrine, and theophylline, keep bronchi continuously dilated. Luminal is included to negate possible side effect from adrenergic medication and to provide very mild dation for the patient.

New Isuprel Compound Elixir alleviates symptoms...prolongs relief in chronic bronchitis and emphysema.

Each good-tasting vanilla-flavored tablespoon (15 cc.) contains:

Isuprel® (brand of isoproterenol) HCl	2.5 mg.
Ephedrine sulfate	12 mg.
Theophylline	45 mg.
Potassium iodide	150 mg.
Luminal® (brand of phenobarbital)	6 mg.
Alcohol	19%

Adult Dose: 2 tablespoons 3 or 4 times daily.

How Supplied: Isuprel Compound Elixir is supplied in bottles of 16 fl. oz.

Before prescribing be sure to consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.

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Continued

disabled citizens and returning them, if possible, to productive capacities.

Dr. Sicks, when he assumed the post of Director, emphasized that he considered the program as one which would be self-liquidating in time. Instead of constituting a drain on tax funds, he considers it as a means of returning disabled people to a productive life, so that in a few years their tax-paying potential would be sufficient to pay for the rehabilitation.

One of Dr. Sicks' first official acts was to make it possible for physicians to charge their usual and customary fee for the general medical examination, blood serology and urinalysis which each applicant must have when he applies for rehabilitation services. In the past the fee for these three items was set at a level which was too low to be compatible with good clinical work and careful diagnosis. It is hoped that the new program of fees will not be abused and that the applicants will receive adequate examinations.

Indiana contributes 40% of the budget for this division and the federal government pays 60%. The division has been handicapped in the past because appropriations by the state have been insufficient to obtain the full share of federal funds. In the last fiscal year Indiana missed out on $1 million of matching funds because our own appropriation was small. There are enough disabled indigent patients to make good use of this much rehabilitation money. Dr. Sicks is anxious to utilize it and produce more self-reliant, productive tax-payers to help share the burden. He advises an information campaign to acquaint the state legislators with the problem. The self-liquidating feature of the program makes a good point to absorb the pain of increasing appropriations.

I. U. SCHOOL OF MEDICINE GETS CANCER RESEARCH GRANT

A new cancer research grant to the Indiana University Medical Center has been announced by the American Cancer Society. The award of $53,188 goes to Dr. Felix Pircher of the Department of Radiology for the development of equipment and technics for internal application and measurement of radiation of tumors.

Current cancer research projects at the University now total over $237,500 and include important investigative work under the direction of such noted scientists as Dr. T. M. Sonneborn, Dr. George Weber, Dr. David M. Gibson and Dr. Henry Mahler.

Today's grant brings to $1,506,000 the amount appropriated to date at I.U. by the American Cancer Society. Other grants to Purdue and Notre Dame bring the state total to nearly $2 million.

Dr. Pircher's grant is especially significant, having been funded by national advisory research committees in the face of a $4 million shortage against total approved applications.

Dr. Niederpruem Receives Special Award from Lederle Laboratories

Dr. Donald J. Niederpruem of the Indiana University School of Medicine has been selected as one of 14 medical school faculty members in the United States and Canada to receive special awards from the Lederle Laboratories.

In addition to the recognition of Dr. Niederpruem, assistant professor of microbiology, as an outstanding young scholar and teacher, the Lederle award provides $15,000 over a three year period to the I.U. Medical School to supplement his salary and provide funds for books and attendance at scientific meetings.

Purpose of such awards, according to Dr. Maxwell Finland of Harvard Medical College and chairman of an independent committee which reviews nominations for the honor, is to provide recognition and incentive to promising young medical teachers and scholars. At the same time the program assists medical schools in the development of promising full-time faculty members.

Since the program was initiated in 1954, the Lederle Laboratories, a division of American Cyanamid Company, has allocated more than $2,000,000 to 129 faculty members in 59 medical schools throughout the United States and Canada.

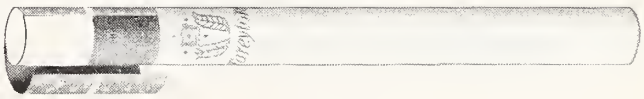
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DUAL FILTER **Tareyton**

Dr. Niederpruem, native of Buffalo, N. Y., and holding B.A., M.A., and Ph.D. degrees from the University of Buffalo, joined the I.U. Medical School faculty in 1961. He recently received research grants from the National Science Foundation and the U. S. Public Health Service for studies in experimental biology.

PART I OB-GYN BOARD EXAMS DEADLINE IS JULY 1, 1962

Applications for certification in the American Board of Obstetrics and Gynecology, new and reopened, for the 1963 Part I Examinations are now being accepted. Candidates are urged to make application at the earliest possible date. The deadline date for receipt of applications is *July the first,* 1962.

All applicants and candidates for re-examination are required to submit with their application or letter of request, a *duplicate* list of their hospital dismissals for the preceding twelve months, made up in accordance with the revised format shown on the last page of the current Bulletin.

Current Bulletins outlining present requirements may be obtained by writing to the Secretary's office.

Diplomates of this Board are requested to inform the Office of the Executive Secretary of any change in address. Your cooperation will be appreciated.

Robert L. Faulkner, M.D.
Executive Secretary and Treasurer
American Board of Obstetrics and Gynecology
2105 Adelbert Road
Cleveland 6, Ohio

SUMMER CAMP FOR DIABETIC CHILDREN

The summer camp for diabetic children will be conducted for the fourteenth year under the auspices of the Chicago Diabetes Association from July 15th through August 5th, at Holiday Home, Lake Geneva, Wis. Boys and girls from eight through 14 years of age are eligible.

As in previous years, the camp will be staffed by resident physicians, a nurse, two dietitians and a laboratory technician, in addition to the regular counseling and domestic staff of Holiday Home.

Rates for summer camp are arranged in accordance with individual circumstances.

Applications may be obtained from, and inquiries should be directed to:

Chicago Diabetes Association
620 North Michigan Ave.
Chicago 11, Ill.

NUTRITION IS ON THE AIR

WTTV (Channel 4 television) is currently carrying a series of programs dealing with nutrition on Saturday afternoons at 3 p.m.

The programs, entitled "Food for Life," feature Dr. Dena Cederquist, former head of the department of foods and nutrition in Michigan State University's College of Home Economics.

The series is being sponsored by the Indiana State Nutrition Council and the Indiana Dietetic Association in cooperation with the Indiana Home Economics Association, Indiana State Dental Association, Indiana Congress of Parents and Teachers, Indiana State Nurses Association, and the Indiana Heart Association.

New Virus Study Laboratory Being Developed at I. U. Medical Center

A new laboratory for virus studies of infectious and other diseases of children is being developed at the Indiana University Medical Center through grants totaling $51,000 from the Indiana Elks Association and the U. S. Public Health Service.

Located in the Riley Hospital research wing, the new laboratory will expand investigations already under way in such virus-related diseases as cancer, diarrhea, meningitis, polio, and of the respiratory system. An important aid in these diagnostic studies is a new fluorescent microscope which reveals the presence of a virus in cultured cells.

The laboratory is a part of the research in communicable diseases of children directed by Dr. Dwain N. Walcher, professor of pediatrics in the I.U. School of Medicine.

COME TO THE FAIR

The physicians in Washington State are cordially extending an invitation to doctors throughout the country who plan to visit the Seattle World's Fair this September to coincide their trip with the 73rd Annual W.S.M.A. Meeting in Spokane, September 16-19, 1962.

Three full days of scientific programs are scheduled with nationally-known guest scientific speakers, medical television, specialty sessions and general sessions included. For additional information on this outstanding state program and hotel reservations in Spokane and Seattle, contact the Washington State Medical Association, 1309 Seventh Avenue, Seattle.

The dates of the Seattle World's Fair are April 21 to October 21, 1962, and information is available from the Washington State Medical Association on scientific meetings scheduled in the state during that time. For hotel reservations in Seattle during the Fair, contact Expo Lodging Service, Seattle World's Fair, Seattle 9, Washington.

Other Radioactive Materials for Treating Cancer Under Study

Additional radioactive materials, potentially valuable for treating cancer by internal radiation, are being studied by a research radiologist at the Indiana University Medical Center.

Dr. Felix J. Pircher, assistant professor of radiology, points out that though radioactive iodine now is used extensively for internal radiation of thyroid tumors there are hundreds of materials that can be made radioactive.

The study, supported by a $53,188 grant from the American Cancer Society, will seek additional radioactive materials which can be administered internally and with safety. It also will include distribution of the materials, their radiation effects on the tumor, and whether other areas are affected.

Dr. Pircher, a native of Austria, served in the U. S. Public Health Service at Salzburg, Austria for six years, at the University of Michigan Hospital, and as a research associate with the medical division of the Oak Ridge Institute of Nuclear Studies before joining the I.U. medical school staff.

American Geriatrics Society Announces Three Grants to Study Problems of the Aged

The American Geriatrics Society has announced the establishment of three $1800 grants to encourage resident physicians to devote more time to the study of the medical problems of the aged.

The grants, made possible by Lederle Laboratories, pharmaceuticals division of American Cyanamid Company, will augment salaries paid to residents while they continue their medical education.

To be known as the Lederle Residency Supplements, the individual grants will cover the period July, 1962 to June, 1963.

In announcing the grants, Dr. A. Clayton McCarthy, AGS President, said it is becoming increasingly important that the peculiar medical problems of the aging be given more attention. He emphasized that increased understanding of diseases and afflictions usually associated with aging can do much to alleviate or lessen the impact of such disorders. This, in turn, can give added usefulness to the experience and other inherent advantages which accrue to older persons, he said.

American College of Radiology Protests Blue Cross Proposal

The American College of Radiology has protested a proposal by the national Blue Cross Association to pay for radiology and other physician care for the aged as a part of its new hospital coverage program.

In a letter to Walter J. McNerney, president of the Blue Cross Association, ACR Board Chairman Dr. T. J. Wachowski of Wheaton, Ill., specifically requested that the Blue Cross exclude medical services from the contracts for the aged to be written by its member plans. Blue Cross proposed to cover the services of radiologists, anesthesiologists, pathologists and possibly other

Continued

physicians and to make payment to the hospitals for these services.

"The inclusion of medical services in a Blue Cross contract, particularly one of this significance, perpetuates and magnifies a major dispute currently existing between physicians and hospitals. Physicians and all medical organizations oppose and resent the hiring of physicians by hospitals with a resale of the services of these doctors for medical fees, whether such fees are paid directly by patients or through the medium of prepayment or insurance," Dr. Wachowski said.

The inclusion of medical service in hospital plans makes the hospital an undesirable middleman between the doctor and the patient, the radiologist said. Where it is necessary to cover service to hospitalized patients, riders worked out by Blue Cross and Blue Shield are a more efficient method of accomplishing the desired result.

National Survey of Prothrombin Announced by Pathology College

The therapeutic benefit from the widespread use of anticoagulant medication makes it imperative that prothrombin measurements be reproducible and that similar levels be used consistently in this country. In order to stimulate interest in the accuracy and precision of prothrombin measurements, the College of American Pathologists will conduct a national survey.

Those who wish to participate in the prothrombin survey may do so by applying to the Committee for Clinical Pathology Standards of the College of American Pathologists, Prudential Plaza, Chicago 1, Illinois. In addition to the survey samples, a critique on prothrombin measurements containing suggestions for increasing the reproductibility and accuracy will be sent to each participant.

Eleven Grants for Research Go to Help Solve Human Health Problems

A wide variety of research, both clinical and basic, but all designed to solve human health problems, will be furthered by a series of eleven grants totaling approximately $150,000.

Five of the research projects will be supported by grants from the U S. Public Health Service. The largest, amounting to $35,920 and part of a continuing five-year investigation, has been received by Dr. Frank R. N. Gurd, biochemistry, to study the structure of proteins. Another in biochemistry, $30,705, will be used by Dr. David M. Gibson for research in fatty acid biosynthesis.

The U. S. Public Health Service also has provided grants for these studies:

Dr. Robert B. Failey, Jr., internal medicine, $21,217, human bile acids; Dr. Philip A. Christenson, medicine, $15,059, intestinal absorption of vitamin B-12; and Dr. Leslie W. Freeman, director, Surgical Experimental Laboratory, $21,952, experimental spinal cord injury by-pass.

Aid for research from other sources was announced as coming to the following:

U. S. Navy, $8,715, to Dr. Harris B. Shumacker, Jr., surgery, for continued study of the function and morphology of blood vessels; U. S. Atomic Energy Commission, $6,000, to Dr. Felix J. Pircher, radiology, equipment for cancer research; National Cystic Fibrosis Research Foundation, $1,200, to Dr. Arthur D. Merritt, medicine, for cystic fibrosis research; United Cerebral Palsy Research and Educational Foundation, $3,800, to Dr. Carl D. Martz, Orthopaedic surgery, to support a fellowship; E. R. Squibb and Sons Corp., $2,875, to Dr. Joseph H. Gans, pharmacology, to study influence of certain drugs, and General Homes division, General Industries, Inc., $250, for cancer research. ◄

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FUTURE MEETINGS, SEMINARS, COURSES

Indiana Pathologists Offer 14th Annual Seminar May 20

The Indiana Association of Pathologists in conjunction with the College of American Pathologists Great Lakes Regional Meeting May 19-20 announces its Fourteenth Annual Seminar in co-sponsorship with the U. S. Veterans Administration Hospital. John W. Rebuck, M.D., Ph.D., will conduct a seminar on Hematologic Diseases at the Veterans Administration Hospital Auditorium, 1481 West 10th St., Indianapolis, on May 20, at 9:30 A.M. (E.S.T.).

A number of sets of slides and protocols are available for pathologists who are not members of the Indiana Association of Pathologists who wish to attend. The request, together with a check for $10.00 should be sent to Dr. Paul V. Evans, Indiana Association of Pathologists, Methodist Hospital, Indianapolis 7, Indiana. The regional dinner May 19, 6:30 P.M., requires pre-registration at $4.50.

All members of the medical profession are cordially invited to attend the Seminar whether or not they obtain the study sets. Presentation will be by lantern slide projections, illustrating all cases.

ROCKY MOUNTAIN CANCER CONFERENCE

The 16th Annual Rocky Mountain Cancer Conference will be held at Denver's completely air-conditioned Brown Palace West Hotel, July 13-14, and will feature panel discussions on "Neoplasms Complicating Pregnancy" and "Carcinoma of the Colon."

The President of the American Cancer Society and the President-elect of the American Medical Association will participate in the two-day program.

Application has been made for A.A.G.P. accreditation for the Conference.

Speakers on the Scientific program will include: Christopher J. Duncan, M.D., of Brookline, Mass.; William H. Gordon, M.D., of Lubbock, Texas; George E. Moore, M.D., of Buffalo, N. Y.; and James W. Reagan, M.D., of Cleveland, Ohio.

Morning sessions of both days of the program will be devoted to the panel discussions folowed by round table luncheons with speakers. Individual papers will be delivered during the afternoon sessions.

The Rocky Mountain Cancer Conference, held annually in Denver, is co-sponsored by the Colorado Division of the American Cancer Society and the Colorado Medical Society.

Further information may be obtained by writing Rocky Mountain Cancer Conference, 1809 East 18th Avenue, Denver 18, Colorado.

AMA TO MEET IN CHICAGO'S AIR CONDITIONED McCORMICK PLACE

Physicians attending the 111th Annual Meeting of the American Medical Association June 24-28 in Chicago will view over 700 exhibits and hear scientific papers in the air-conditioned comfort of America's newest and most modern exposition center —McCormick Place.

Doctors who attended the last Annual Meeting held in Chicago—in 1956—have unpleasant memories of extremely hot, humid weather and poor facilities on the old Navy Pier. Those planning to attend the 1962 meeting are looking forward to their first visit to the new $34,000,000 convention "city" on the lakefront which boasts unobstructed exhibit areas, theaters, attractive restaurants and lounges, shops, and esplanades.

McCormick Place, located on Lake Michigan at 23rd St., a short distance south of the Loop, is a huge, horizontal structure three blocks long, a block wide and equal to a ten-story building in height. It is fully

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You can depend on Bayer Aspirin for Children for it has been conscientiously formulated to be the best tasting aspirin ever made and to live up to the Bayer family tradition of providing the finest aspirin the world has ever known.

Bayer Aspirin for Children—1¼ grain flavored tablets—Supplied in bottles of 50.

● We welcome your requests for samples on Bayer Aspirin and Flavored Bayer Aspirin for Children.

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THE BAYER COMPANY, DIVISION OF STERLING DRUG INC., 1450 BROADWAY, NEW YORK 18, N. Y.

equipped to handle 30,000 people an hour as they visit exhibits.

Gross exhibit space is 310,000 square feet in the principal section, roughly the area of six football fields. Exhibitors are welcoming the convenient arrangement whereby a train of railroad cars can run inside the building on a special spur for unloading equipment.

There is ample parking for everyone attending the meeting—exhibitors and others in addition to physicians—in huge lots adjoining the building. McCormick Place is a ten-minute taxi or bus ride from the hotel area in the Loop.

Hotel rooms will be available for everyone. There are 45,700 hotel rooms for guests in the central Chicago area, plus more than 100 hotels in and around the city.

The 1962 meeting will be the first in recent history in which it will be possible to house the entire meeting—scientific sessions, scientific and industrial exhibits, section meetings—under one roof.

Auxiliary to Have Own Program

A special program for all doctors' wives —featuring a report on current affairs in the nation's capital and tips on "guarding your husband's health"—will be presented during the 39th annual convention of the Woman's Auxiliary to the American Medical Association.

More than 2,000 Auxiliary members and other physicians' wives are expected to attend the convention. Auxiliary headquarters will be the Hotel Pick-Congress.

The Auxiliary's House of Delegates will convene Monday morning, June 25 and will adjourn Wednesday, June 27. Meetings will be devoted to reports and discussions of Auxiliary activities including civil defense, legislation, community service, health careers, rural health, safety and mental health.

Sen. Everett M. Dirksen of Illinois and a leading medical authority will be featured speakers at special programs for all doctors' wives Tuesday and Wednesday mornings prior to the delegates' sessions. The annual tea honoring the president, Mrs. Harlan English of Danville, Ill., and the president-elect, Mrs. William G. Thuss of Birmingham, Ala., will be held Monday afternoon.

WOMEN PHYSICIANS INVITED TO AMA SUNDAY BRUNCH

The American Medical Women's Association extends an invitation to all women physicians attending the AMA annual meeting in Chicago, to be their guests at a brunch on Sunday, June 24, at 11:00 a.m. at the Essex Inn.

"Medical Woman Power—Can It Be Used More Efficiently?" will be discussed by a panel.

If you would like to attend, please write to:
American Medical Women's Association
1790 Broadway
New York 19, New York

CONFERENCE ON ARTHRITIC PATIENTS

A postgraduate conference on "The Management and Rehabilitation of Patients with Arthritis" will be conducted by the University of Colorado School of Medicine this summer, July 5, 6 and 7, at Denver. The course will offer a basic review and background information as well as a survey of new developments. It is especially planned for nurses, physiotherapists, occupational therapists, social workers, hospital administrators and public health personnel. Further information may be obtained by writing the Office of Postgraduate Medical Education, 4200 E. Ninth Ave., Denver, 20.

"Medical and Surgical Aspects of the Retina" Course Offered

The annual postgraduate course in ophthalmology of the University of Colorado will cover the "Medical and Surgical Aspects of the Retina" in a four-day session this summer, from July 9 to 12. The meeting place will be the Stanley Hotel in Estes Park, Colorado. The fee for the course is $60.00. Inquiries may be directed to Office of Postgraduate Medical Education, 4200 E. Ninth Ave., Denver, 20. ◄



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Soma relieves stiffness —stops pain, too

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, *fast!*

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

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This was demonstrated by Kestler in a controlled study: average time for full recovery was 11.5 days with Soma, 41 days without Soma. (J.A.M.A. **172**:2039, April 30, 1960.)

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets.
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The muscle relaxant with an independent pain-relieving action

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Deaths

George V. Cring, M.D.

Dr. George V. Cring, a lifelong resident of Portland and a retired physician, passed away Feb. 28 in the Jay County Hospital. He was 78.

Dr. Cring, a member of the ISMA 50-Year Club, was Jay County health commissioner for several years and was instrumental in forming the Visiting Nurses Association. He had served as medical advisor to the Jay County Tuberculosis Association for many years.

Herbert D. Fair, M.D.

Dr. Herbert D. Fair, 94, a member of the ISMA 50-Year Club and retired Muncie physician, passed away March 2 in Ball Memorial Hospital after an extended illness.

Dr. Fair served in the Spanish-American War in 1898. Following the war, he came to Powers Station in Jay County where he practiced medicine for a year before moving to Muncie in 1900. He was secretary of the Delaware-Blackford Medical Society eight years and was one of the physicians who organized the Muncie Academy of Medicine.

Francis J. Sazama, M.D.

Dr. Francis J. Sazama, 49, Schererville, was fatally injured April 1 in an auto accident in Highland, Ind.

An industrial surgeon for the Inland Steel Company, he was graduated from the University of Illinois medical school in 1939. He served in the Army Medical Corps in World War II with the rank of lieutenant colonel. ◄

County News

Allen

Major Vincent C. Sweeney spoke on the subject of "Brainwashing" before the Allen County Medical Society meeting March 6. There were 96 members present.

Bartholomew-Brown

Twenty-five members of the Bartholomew-Brown Medical Society met March 14 and approved the resolution against the King-Anderson bill. The publicity committee is going to run AMA ads in the local papers, put material in offices and in their office mailings. A group also plans to visit the Clinton County "Town Hall" meeting and hold one in Columbus soon.

Boone County

The subject of "Medical Care for the Aged" drew 320 people to the Boone County Medical Society public meeting March 15. Paul Hill, of Insurance Underwriter's, was the speaker.

Clark

A film by Smith, Kline & French was shown at the Clark County Medical Society meeting March 20. There were 32 members in attendance. The public relations committee has set up a no charge in-office examination for high school sports participants. The group is planning to set up a medical column in the local paper once a week and is working with Floyd County on a 30-minute weekly radio program.

Dearborn-Ohio

Dr. Jose Ibanez spoke on "Ambulatory Urological Problems" before 11 members of the Dearborn-Ohio County Medical Society March 8. Delegates and alternates to the state meeting were re-elected to conform with the state constitution and by-laws.

Decatur

Field Secretary R. J. Amick gave a report on the action of the ISMA House of Delegates and further welfare plans for "medical only" before the March 16 meeting of the Decatur County Medical Society. There were 12 members present.

Continued

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12 TIMES GREATER FAT-SPLITTING LIPASE (STEAPSIN) ACTIVITY THAN PANCREATIN N.F.[1]

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COTAZYM-B is a new comprehensive digestant containing bile salts, cellulase and *lipancreatin* for supplementing deficient digestive secretions and helping to restore more normal digestive processes. *Lipancreatin*—"the most potent pancreatic extract available"[3]—is a concentrated pancreatic enzyme preparation developed by Organon.[4] It has been clinically proven to be an effective agent for treating digestive disorders of enzymatic origin.[1,4,5,6,7,8] COTAZYM-B is indicated for the symptomatic relief of dyspeptic or functional digestive disturbances characterized by bloating, belching, flatulence and upper abdominal discomfort.

Dosage: 1 or 2 tablets with water just before each meal.

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REFERENCES: 1. Best, E. B., Hightower, N. C., Jr., Williams, B. H., and Carobasi, R. J.: South. M.J. 53:1091, 1960. 2. Analytical Control Laboratories, Organon Inc. 3. Best, E. B., et al.: Symposium at West Orange, N. J., May 11, 1960. 4. Thompson, K. W., and Price, R. T.: Scientific Exhibit Section, A.M.A., Atlantic City, N. J., June 8-12, 1959. 5. Weinstein, J. J.: Discussion in Kelfer, E. D., Am. J. Gastro. 35:353, 1961. 6. Ruffin, J. M., McBee, J. W., and Davis, T. D.: Chicago Medicine, Vol. 64, No. 2, June, 1961. 7. Berkowitz, D., and Silk, R.: Scientific Exhibit Section, A.M.A., New York, June 25-30, 1961. 8. Berkowitz, D., and Glassman, S.: N. Y. St. J. Med. 62:58, 1962.

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COUNTY NEWS

Continued

Fountain-Warren

Nine members and 12 guests of the Fountain-Warren County Medical Society heard Dr. Frank Peyton, of Lafayette, speak on the topic of "Cervicitis" March 1.

Grant

Dr. George J. Thomas, of the University of Pittsburgh School of Medicine, spoke before 100 members and guests of the Grant County Medical Society March 27. Many letters were sent out to interested parties in the surrounding area inviting them to hear Dr. Thomas. His subject was "Fire and Explosive Hazards in Hospitals and Their Control."

Harrison-Crawford

The Harrison-Crawford County Medical Society met March 13 at the Harrison County Hospital. They appointed a committee to meet with a Field Secretary of ISMA and an AMA representative to discuss a personal door-to-door program by the physicians concerning medicine's viewpoint on the King-Anderson bill. Ten members attended.

Howard

The 30 members present from the Howard County Medical Society saw a film on "Erythroblastosis" March 6 at their meeting in the Frances Hotel.

Jefferson-Switzerland

Tom Bushold of Smith, Kline & French Laboratories showed a film to the 20 members of the Jefferson-Switzerland County Medical Society at their meeting March 6.

Lake

Approximately 200 doctors, dentists and their wives met March 14 in Whiting for the annual meeting of the Lake County Medical Society with the Northwest Indiana Dental Association. Dr. Otis Bowen, of Bremen, state representative, spoke on "The Doctor—The Congress—The Legislature."

LaGrange

Dr. Philip Yunker, of Howe, was elected president of the LaGrange County Medical Society at their meeting March 21. Other new officers are Dr. Harley F. Flannigan, LaGrange, vice-president, and Dr. Jerry A. Miller, LaGrange, secretary-treasurer, Dr. Miller will be delegate to the state convention with Dr. M. Reed Taylor, Howe, serving as alternate.

LaPorte

"Diseases of the Larynx" was the subject of a talk given by Dr. Paul Holinger, professor of Broncho-Esophagology at the University of Illinois, March 20 before the LaPorte County Medical Society. Dr. Holinger showed both slides and color movies to the 35 members present.

Owen-Monroe

Lyle V. Beck, Ph.D., professor of Pharmacology, experimental medical program, I. U. School of Medicine, spoke on some of his experiments in research before the Owen-Monroe County Medical Society March 29. Dr. Beck also showed a film on the neurologic effects of therapeutic drugs to the 35 members present.

Steuben

Nine members of the Steuben County Medical Society met in Angola March 5. The society will ask service clubs, sororities, and chamber of commerce to take a stand against the King-Anderson bill by writing to U. S. senators and congressmen.

Sullivan

The Sullivan County Medical Society had 13 members present at their March 1 meeting. A request was made for the society to ask the local Director of Welfare to explain the new medical coverage under welfare.

Wayne-Union

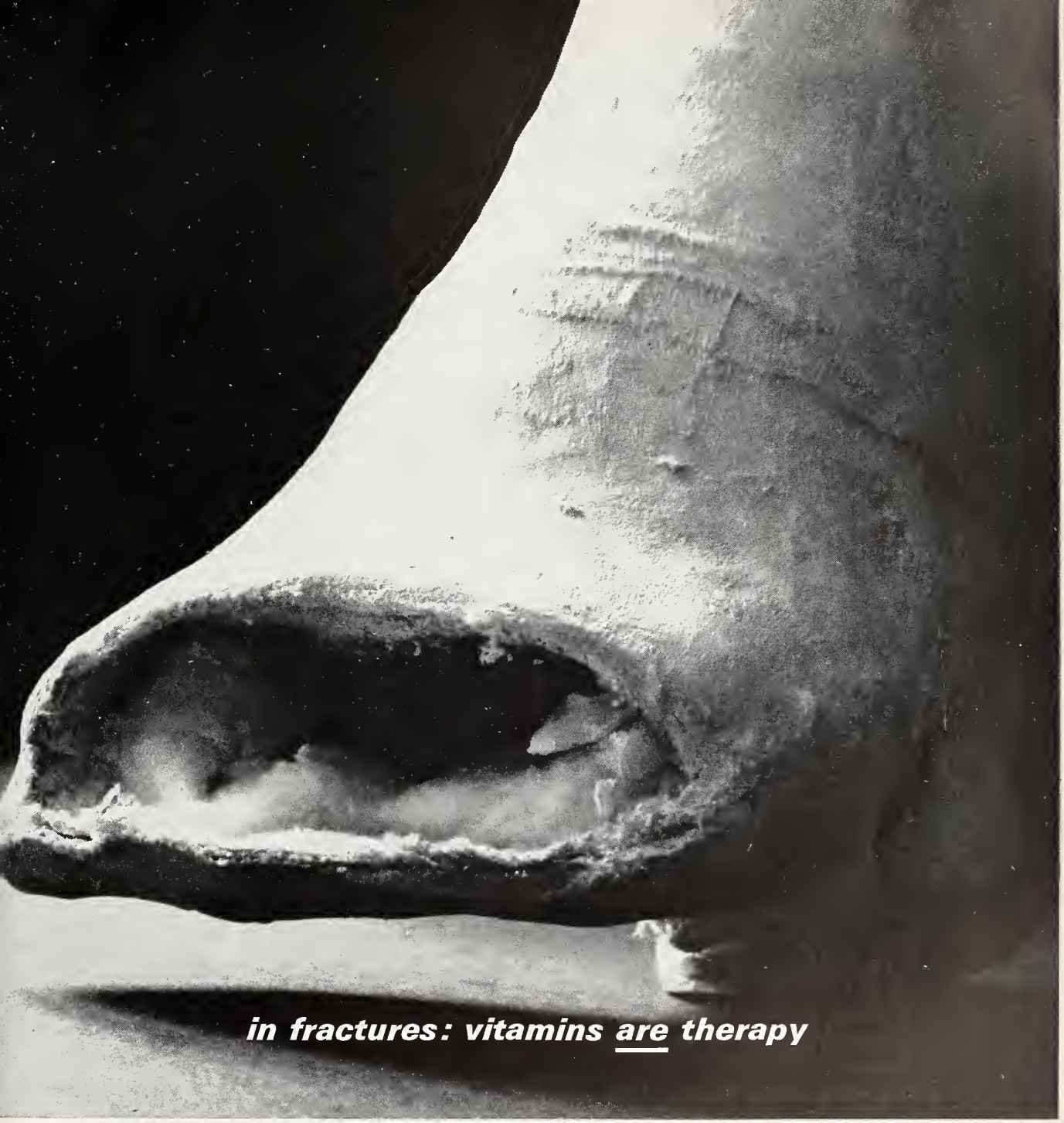
"A Look at Medicine in the Newly Independent Countries of Africa" was the subject of a talk given before the Wayne-Union County Medical Society March 13. Dr. G. Tanner Brooks was the speaker and there were 42 members present.

Whitley County

Dr. Jerome Wait discussed "Medicine—Egyptian Phase" before 15 members of the Whitley County Medical Society March 13.

Wabash

Dr. Lloyd H. Smith has been elected president of the Wabash County Medical Society. Dr. William D. Boaz will serve as vice-president during the coming year and Dr. Paul A. Eiler will serve as secretary-treasurer. Dr. Carl J. Elward was chosen delegate to the state convention. ◄



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Association Objects to Arbitrary Ruling of Department of HEW on Expanded Indiana Old Age Assistance Program*

Dear Congressman:

I am writing you on behalf of the Council of the Indiana State Medical Association concerning what we believe is an effort on the part of the Department of Health, Education and Welfare to make Indiana's recently enacted program for the provision of medical care to needy persons as difficult to administer as possible.

To review for you the background of our problem, the Indiana State Medical Association in the 1961 session of the Indiana State Legislature attempted to have enacted the Kerr-Mills law in the State of Indiana. We ran into difficulty for the following reasons as given to us:

(1) It would require specific new legislation.

(2) It would require a specific appropriation.

(3) It would create two eligibility standards because

a. It would prohibit a residency requirement;
b. It would prohibit a lien law, and
c. It would prohibit the anti-secrecy provision.

Under the existing welfare program of Indiana these provisions are included.

Another point brought to our attention was that the Kerr-Mills bill, if implemented in Indiana, would provide only a 52.03 per cent reimbursement or matching grant from the federal government. And, finally, no one could be certain as to the number of persons who might be involved in such a program, or the cost of such legislation.

The only way in which the Indiana Legislature would consider this matter was by expanding their present old-age assistance program. We were told that by so doing and by adding the category of medical care, it would be possible for those who found themselves unable to pay for hospital and medical care to apply for this assistance through the local welfare departments, providing they met the eligibility requirements.

It should be pointed out here that under the old-age assistance program as existing in Indiana prior to January 1, 1962, a person who qualified for assistance in the areas of food, clothing and shelter under the welfare code, automatically received it by virtue of their being qualified in these other areas of need. However, it was impossible for a person to apply and be qualified under the previous law for medical assistance alone.

Therefore the Legislature added the category of medical care to the existing old-age assistance program, which now enables, as of January 1, 1962, a person to apply and receive assistance in this one area alone.

We were also informed, during the discussions on this proposal, that the medical care program under the welfare plan in Indiana was an "open-end" type of appropriation and, furthermore, that the federal government reimbursed 65 per cent or more of the cost under this particular program. Therefore, if we are correctly informed, the State of Indiana receives 15 per cent additional reimbursement from the federal government under the expanded old-age assistance program than it would have received under the strict implementation of the Kerr-Mills Act and also, therefore, was

* Letter from ISMA sent to the governor and lieutenant governor of Indiana and to all senators and congressmen from Indiana.



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ASSOCIATION OBJECTS

Continued

able to maintain the lien law, the anti-secrecy provision, and the residency requirement.

I am sure that you are familiar with the operation of the Indiana law, but if not, we understand that the person must have lived in Indiana three of the last five years to be eligible under this program. If real estate is owned and assistance is granted, the Welfare Department is allowed to place a lien upon such real estate but the lien does not become collectable until following the death of the recipient and his or her spouse. (An interesting sidelight to this point is that if the property is not in joint title and it might be in the name of the husband or wife and assistance is granted to that person and said person dies before the surviving spouse and the property is willed to the surviving spouse, the lien is inoperative.)

With this background material we now find in implementing this expanded assistance program that the Department of Health, Education and Welfare refused to permit Indiana to make such assistance available retroactive to the date of admission to a hospital or to the receiving of such assistance.

Under the welfare program in the areas of food, clothing and shelter, assistance does not begin until the first of the month following the month in which the welfare board approves the application. Under the medical assistance only plan the assistance is not available until the first of the month of the month in which the welfare board approves the application.

Example: If the county welfare board meets on the 15th of a given month and if a needy person is admitted to the hospital on the 16th of the month and the welfare board does not meet until the 15th of the following month, coverage for such assistance is only retroactive to the first of the month of the month in which the welfare board approves such application. This means that there can be possible as many as 14 days of assistance which is not covered under the Indiana provision due to the ruling which, we are informed, has been made by HEW. On the other hand we are informed that had we implemented the Kerr-Mills bill, assistance would have been retroactive to the first day of need.

We believe in any legislation such as Kerr-Mills. A provision should always be included permitting states to have a voice in developing their own regulations. If they want a lien law they should be permitted to have one. This attitude on the part of the federal government is factual proof of their intent to dictate to the states and the taxpayers, which they always so glibly state they will not do when they attempt to sell a new piece of legislation, such as H. R. 4222.

We believe if we are correct in our facts, that the Department of Health, Education and Welfare is not being very cooperative with the State of Indiana in trying to solve whatever problems which might exist in this particular area. We would therefore appreciate your assistance in verifying these facts and if they are found to be true, we would appreciate your doing anything possible to obtain from the Department of Health, Education and Welfare a ruling which would permit Indiana to operate this program so as to provide first-day coverage in these cases of need. ◄

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James A. Waggener,
Executive Secretary

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Report from the Commission on Aging*

NATHAN SALON, M.D., Chairman

Almost over night, old-age has become one of the most important factors of our time. Advances in medical and public health knowledge enables more and more of us to grow old. One of the most pressing problems of this country is the one dealing medically, socially and economically with people of geriatric age, and it has become one of the most contentious topics in medicine today.

This apparently was recognized by our former president, Dr. Owsley, and the Board of Delegates, and a new Commission of the Aged and Aging of the I.S.M.A. was established. The organizational meeting of the Commission was held on March 26, 1961, after which we held three meetings, with an attempt to discuss fully all the aspects of the aging process and their implications.

"The goal of the Commission is to help focus the attention of the aged and aging on their strengths rather than their weaknesses, as well as to inform the public of the dangers of compulsory health insurance for the aged under the Social Security System, and to answer false propaganda about the aged and aging with facts."

Four essential work areas were agreed upon by the Commission for the preservation of the health of the elderly person, as follows:

1. Adequate medical care programs.
2. Voluntary medical care insurance.
3. Periodic health appraisals.
4. Geriatric rehabilitation services.

As a result of the deliberations of the Commission, four resolutions were developed and were presented to the House of Delegates for their approval. These resolutions were accepted and passed by the House of Delegates:

1. Independent living
2. Standard health and medical procedures for County Homes
3. County Medical Society liaison with local group or groups
4. Geriatric rehabilitation services.

I have these resolutions with me and they can be read if you so desire.

The Commission of the New Administration met on Dec. 3, 1961 to continue our study of the problems, but particularly to think through the implementation of the resolutions. It was recommended that committees be established in each County in order to implement these resolutions on a local level. It was pointed out that the State Board of Health is already moving towards its part of the implementation of the resolutions. There are many factors involved, such as: Home-care programs, housekeeping programs, day care, meals on wheels, study of nursing homes and county homes as medical institutions and other auxiliary services.

I should remind you that the AMA, the Blue Cross Hospital Service, the U. S. Public Health Service, and the American Hospital Association developed, conducted, and completed a rather extensive work-shop on the matter of home-care services, the proceedings of which have been distributed to our Commission. I recommend it to the Council. Many of us feel that one of the big problems facing organized medicine today is in the field of chronically ill and aged, and some of these might be met by a development of an adequately and properly medically supervised home-care program. A

* Speech presented to the Council Jan. 14, 1962.

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Editorial; JAMA. 178: 1158, Dec. 23, 1961.

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proper program of this type could certainly take the chronically ill and the long-term patients who are occupying acute hospital beds into facilities that would be less expensive or more satisfactory.

After more or less complete discussion of this whole matter of home-care program, the following action was agreed upon. The Commission asked to appear before the Council and present this information, which in turn would be spread to their Districts and also to get its advice. It then would be advisable for Regional Medical meetings, probably about four, to be held in the State, in which a positive program of progressive home-care could be exemplified and agreed upon. Following these meetings the Commission would then undertake to reconcile any differences which might develop, and finally produce a home-care plan which was a product of the medical knowledge and leadership in our State.

Just as soon as this plan is developed the I.S.M.A., the Governor's Commission on Aged and Aging, the Indiana State Board of Health, and other interested organizations should sponsor a state-wide meeting as an information and indoctrination device. Our Commission approved this type of plan in principle.

I need not tell you that many organizations are studying the problem of aging and all its implications. Just recently I had the pleasure of representing I.S.M.A. at a meeting of the Joint Council to Improve the Health Care of the Aged held in Chicago.

In conclusion, may I say that we must recognize that we have a changed social order and we must recognize that there are some deficiencies in our present system of medical care. We should strive to keep what is good in our system, discard that which is outmoded, develop supplementary methods to remove these deficiencies and yet keep the practice of medicine within the field of private enterprise or what is known as the American Way of Life. No one can offer any final solution for the problems of the aging at the present time. It is too new a subject to be so quickly resolved, but we must find the answer under our American system.

We feel that personal medical care is primarily the responsibility of the individual. When he is unable to provide this care for himself, the responsibility should pass to his family, his community, the state, and only when all these fail, to the federal government, and then only in conjunction with the other levels of government in the above order. Health-care costs of the near-needy can best be determined locally. The Kerr-Mills bill, now law, is as close to our theory as possible. We are definitely against the Kennedy program of medical care and the King-Anderson bill. It will not be sufficient for the medical profession to stand idly by or simply to be against the various programs that have been presented by government agencies, by organizations and by individuals. We must develop a positive program. ◄



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Contributors are responsible for all statements made in their articles. The editors and editorial board members may not be in agreement with all views expressed by authors, but it is desired to give all authors as great latitude as possible. However, the right is reserved to reduce in length or reject any article.

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LOOKS AT MEDICINE

This section of THE JOURNAL is devoted to the presentation of opinions which appear on the editorial pages of the public press, and which are of interest to the medical profession. Its function is to review comments which may be favorable or unfavorable to medicine. Members are invited to submit editorial clippings for this column.

A Crack in a Socialist Illusion

Every poll that has ever been taken in Britain shows that the majority of people there are in favor of their socialized medical program where all is "free" and no man need worry about a doctor's bill.

So if popularity is the test, it has been a political success. But now there is beginning to appear an ominous crack in the happy illusion that the British have, by socializing their medicine, thereby banished their medical cares. Doctors' bills have vanished. Now the doctors are vanishing too.

The fact of a dwindling supply of British doctors in Britain is now unquestioned; it has been the subject of worried discussion in economic and medical journals, in magazines and newspapers and in Parliament. The article we publish this morning from the British Medical Journal is typical of some of the widespread concern.

Briefly, here is what has happened:

In the early years of the National Health Service young British students entered the medical schools in their accustomed number and some of the schools even showed an increase in total enrollment. The figures on the licensing of new doctors in Britain also were increasing. All seemed to be well, and in 1957 the government planners were even urging an immediate reduction in the number of medical students.

Suddenly everybody woke up to the fact that British medical students weren't converting themselves into British doctors. Increasing numbers of them were going off to Canada, Australia, America and other backward places where a doctor is not in effect a government clerk. Meanwhile, doctors from India, Africa and other emerging nations—some of whom studied in Britain, some of whom studied in their own countries — came to Britain and found ready posts in hospitals vacated by the British doctors going elsewhere.

So while a statistician might find the situation little changed by the advent of socialized medicine, the fact is that the British medical situation has changed dramatically.

Today about one-half of all emergency surgery in Britain, to choose one measurable example, is done by non-British-trained doctors. More intangibly but importantly, the professional journals are full of criticism of the quality of British medical practice.

So there is now in Britain a great hullabaloo about what to do to get more able young Englishmen to be English doctors. Yet there are very few so far to ask the simple question: Why should a young English boy want to be an English doctor?

The training for medicine is one of the longest and most arduous of any career. To go through it a young man must be moved by many motives. But those would surely include a desire to make a good living, to enter a profession where he could be his own master and not a hired employee, to have the self-satisfaction of being respected by his community as "the doctor" has ever been. And not the least of the

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motives is a desire to give to the sick person who comes to him the best care he can provide.

British socialized medicine has taken away every one of those motives, without exception.

The young British doctor, for all his years of study, is paid like a clerk. He is not a "professional man" but a government functionary, and in becoming so he loses the status the doctor once had. He is not his own master even in the practice of his skills. Finally, because the "free" care crowds his anteroom he cannot give to the patient before him the time, energy and care he would like to as a good doctor.

Why should anybody be surprised, under such a system, that the able young men are looking elsewhere? Or that thoughtful men should begin to be troubled about the quality of medical care?

Whether all this will in time affect the popularity of the medical program in Britain, we do not know.

But watching it all from afar, we can't help but reflect that here is one place above all where bright and shining promises can cheat the unfortunate while they happily suppose they are counting their blessings.—*Wall Street Journal*, Apr. 16, 1962.

Bright Health Picture

Holding promise of even better years to come is an encouraging 50-years-of-health report issued recently.

Basis of the findings, which reflect unprecedented reductions in mortality and lengthened life span, is a survey of what happened to a large insurance company's policyholders over the last half century.

Generally, the death rate in 1960 was only about half that prevailing in 1911. Specifically, mortality in the 1-to-74 age bracket fell from 13.5 per thousand persons in 1911 to a mere 4.1 in 1960. It was only in such devastating periods as the 1918 influenza epidemic that steady progress was interrupted.

Significant beneficiaries of mortality reduction are those in childhood and early adult life. In the one to four age group, for instance, deaths have been cut more than 90%.

Of note are the means by which progress has been achieved. It reflects advances in medicine, public health and the general standard of living. Medical science and an informed public have combined to drastically reduce tuberculosis (225 per 100,000 in 1911; 5 per 100,000 in 1960), pneumonia and influenza, communicable childhood diseases, poliomyelitis and maternal mortality.

Casting a pall over this otherwise rosy outlook are the great killers: coronary and other heart diseases and cancer. The former account for more deaths than from all other causes combined. Malignancies rank second.

Increases have been noted in the incidence of both heart diseases and cancer. Encouraging is the intensive research devoted to these diseases, to the probability that part of the increases may be due to the rise in the average age of all persons, and to more accurate diagnosis and reporting of the afflictions.

Far better still than the decrease in mortality rates is lengthening of the life span—a whopping 24 years since 1911. Based on expectation of life at birth, persons born in 1911 could look forward to only 46 years of life. The baby born in 1960, by comparison, has a life expectancy of 70.6 years.

That's a gift of 24 years of life, fired in the crucibles of science and wrought on the anvil of the public's greater health knowledge.—*Wall Street Journal*, Apr. 6, 1962.

Playing Politics with the Aged

In the game of politics, a group that wants to push its own proposal is likely to spend a good deal of time attacking its opponents—and any alternative programs. If the attacks are frequent and violent enough, the opponents will be kept busy defending themselves. And no one is likely to have much time for calm consideration of the group's own proposal.

This at least seems to be the thinking of the Kennedy Administration as it promotes

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its plan to provide medical care for the aged through Social Security. One of the prime opponents of the proposal is the American Medical Association, so the AMA now is coming under heavy fire.

John M. Bailey, the Democratic national chairman, charged the other day that the national medical group "has stood for years against the social and economic advances that the Birch Society stands against today." In fact, Mr. Bailey contended, "the American people are starting to regard the AMA as an ally of the John Birch Society in a surgical mask." One doesn't have to be a fan of the AMA to recognize this as wild political propaganda.

But the Democrats and the Administration were not through with the AMA. A few days later, the President welcomed a group of 27 doctors to the White House. The group read a statement signed by 40 doctors who support the Administration's medical care program, and the President said he hoped this support would convince other doctors of the wisdom of his plan.

A spokesman for the 27 doctors said he didn't know how many AMA members favored the Social Security approach but added that 75% of the 40 doctors who had signed the statement were members of the AMA. This is proof positive that at least 30 of the AMA's 180,000 members are all for the Administration's proposal.

On the same day, Secretary of Health, Education and Welfare Ribicoff attacked an existing Government program of medical care for the aged. The AMA and many other groups and individuals argue that this program, set up by the Kerr-Mills Act of 1960, deserves a fair test before the Government embarks on anything as extensive as medical care through Social Security. Under the Kerr-Mills plan, states can set up Federal-state medical programs for persons over 65 whose financial resources are limited; the Federal Government provides at least half of the funds.

So far as Mr. Ribicoff is concerned, the Kerr-Mills plan has already met its test and failed. The findings of a study conducted by his department, he said, "support the conclusion that to rely on existing public assistance legislation alone as a means of meeting the medical care needs of aged persons would not only fail to cover many aged people in need, but would be very costly in general revenues."

Both Mr. Ribicoff's "study" and its conclusions, we believe, should be scrutinized carefully. The plan is dependent on voluntary action by the states, and state legislatures do not move rapidly. By January, the month on which Mr. Ribicoff's figures were based, 22 states had begun—but had only begun—to participate in the program.

Since January, Mr. Ribicoff concedes, six more states have joined the program. And it is certain there will be others, especially if the prospects for the Social Security program should dim. Any Government program, as the Secretary certainly should know, tends to grow as time goes along.

And then there's that comment that the Kerr-Mills plan alone would be "very costly." Is Mr. Ribicoff seriously suggesting that it would cost the taxpayers any less to provide medical care for all elderly citizens, whether they need financial help or not, than it would cost merely to care for those in need?

No one we know of is opposing adequate medical care for the elderly. But there is a very real public policy question whether this should be on a voluntary or a compulsory basis. And whatever anyone thinks about that, it's certain there hasn't been time to fairly assess the Kerr-Mills program—or the many new private insurance plans for the elderly.

However smart its politics may be, we can't see how the Administration is serving the interests of the elderly or the public with its propaganda mixture of vilification and distortion.—*Wall Street Journal,* Apr. 2, 1962.

The Journal of the INDIANA STATE MEDICAL ASSOCIATION

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Allergic Reactions to Bee and Wasp Stings

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IN THE PAST FEW YEARS, the problem of severe reactions to stings of bees and wasps has presented itself with increasing frequency. The majority of the reactions reported in the literature have followed but one or a few stings. This observation suggests their allergic nature.

Reactions to stings may be of the immediate or delayed type. The immediate, which occurs within a few minutes after the sting, may be mild or severe. Mild symptoms consist of local swelling, generalized urticaria, petechial hemorrhages or regional adenopathy. Severe reactions consist of dyspnea, asthma, cramps, abdominal cramps, diarrhea, nausea, vomiting, chills, fever, shock or loss of consciousness. The delayed reactions may occur 24 hours later and even four to 10 days later; they consist of local swelling, urticaria, malaise or other symptoms of serum sickness.

Parrish[1], in analyzing the death certificates of all persons in the United States who died from bites and stings of venomous animals and insects for the five-year period, 1950 through 1954, found that Hymenoptera insects caused 86 deaths. Three such deaths occurred in Indiana. Fifty-two deaths were due to bees, 21 to wasps, seven to Yellow Jackets, and five to hornets. Only 71 deaths were due to the bites of poisonous snakes. Thus, the smaller insect is a greater giant killer than the more commonly feared poisonous snake. Most of the deaths resulting from Hymenoptera stings were found by Parrish to occur within one hour (usually within 15-30 minutes). It would appear that any effective treatment must be given almost immediately after the sting of the insect.

Necropsy findings in the ten cases reviewed by Schenkin et al.[2] showed the following changes in the order of their frequency of occurrence: pulmonary emphysema, cerebral edema, fatty metamorphosis of the liver, dilation of the heart, epicardial hemorrhage, cerebral intraventricular hemorrhage, congestion of nasal sinuses, cutaneous petechiae, cerebral petechia, meningeal hyperemia, fatty degeneration of the heart, cardiac hypertrophy and lobar pneumonia.

Social Bees and Wasps Most Aggressive

Bees and wasps belong to the class Hexapoda order Hymenoptera and are from two

families: The Apids or bees, and the Vespids or wasps. While there are many species, it is usually the social bees and wasps which are so prone to attack and sting humans. The solitary wasps which include the Mud Dauber, Potter, Blue Mud Dauber, and Cicada Killer wasps are commonly encountered wasps and cause no trouble. Of the social Apids, the two important species are the Honey bees and the Bumble bees. Honey bee nests or hives contain large numbers of inhabitants, which attack unmercifully when disturbed. It is not uncommon for children to be stung when barefooted in grass as the insect gathers nectar from clover.

The social Vespids are not as easy to identify as the bees. They are usually a source of confusion and uncertainty to the patient who is trying to report what stung him. The Polistes or Paper wasps, largest of the three, builds small open-comb nests under eaves, porches, shrubbery or in a protected place, such as a garage or attic. He stings only on provocation, but can be vicious. The hornets or Common White-Faced hornets construct papier-mâché-like oval nests hanging from trees and shrubs. These nests may hold as many as ten thousand hornets, which stream out at the slightest interference to attack viciously in large numbers. The Yellow Jacket, though smaller, is closely related to the hornet, both being Vespid wasps. The yellow bands on the body are an identifying feature of the Yellow Jacket. This wasp nests near or in the ground, or under logs or in holes in the ground. It is a mean stinger when the nest is disturbed, and may be encountered when a nest is disturbed by a lawn mower.

Venom Generally Acid in Content

In bees and wasps the stinging mechanism is similar and represents an adaptation of the egg-laying apparatus.[3, 4] It consists of an acid gland, a poison sac and an alkaline gland. The venom produced by the mixture of the contents of these glands is generally acid and is injected into the victim through a hollow double lancet. The stinger of the Honey bee is barbed so that it stays in the skin of the individual stung and the Honey bee dies. The stinger should be removed with care so as not to squeeze the sac with consequent injection of more venom. The stinger of the wasp, Yellow Jacket, and hornet does not break off; therefore, they can inflict multiple stings.

The exact nature of the venom is not well understood, and there are considerable variations in the estimation of the amount injected—the most probable estimate being 0.05 ml. Formic acid is present in the toxin. Though it was considered to be the principal factor, it is present in too small an amount to cause the primary effect.[5] Several investigators felt they could demonstrate three active toxic components: (a) a hemolysin, (b) a neurotoxin causing edema and paralysis and (c) a histamine-like substance causing primary inflammation.[6]

Prompt Treatment Imperative

Treatment of persons stung by bees or wasps (who have previously had anaphylactic reactions) should be instituted promptly since these reactions may occur within minutes.

The following treatment of severe allergic reactions to stings is recommended:

Individuals who have had severe allergic reactions to bee or wasp stings should carry on their persons and take immediately if stung, Isuprel 10 mg. sublingually, and an antihistamine such as Polaramine 6 mg., Dimetane 12 mg., Tacaryl 8 mg., or Co-Pyronil. In addition, they should also have on hand a sterile disposable syringe together with a 1 cc. ampoule of 1:1000 Adrenalin, and give themselves subcutaneously 2 to 4 minims.

Local therapy should include removal of stinger if present, and application of wet alkaline packs, such as soda bicarbonate and ammonia water, and ice packs. When first seen by the physician, if possible, a tourniquet should be applied proximal to the stinger. If the patient has not received Adrenalin, then one should give 2 to 4 minims of Adrenalin 1:1000 subcutaneously. If the sting is on an extremity, then an additional 2 to 4 minims of Adrenalin may be given in the sting area.

Antihistamines may also be given intramuscularly. These would include Dimetane 20 mg., Chlor-Trimeton 20 mg., or Benadryl

10 mg. If the emergency is grave, antihistamines may be given intravenously.

Steroid preparations may be given intramuscularly. These would include Hydeltrasol 40 mg. or Decadron 20 mg.

If the patient is in shock, then A.C.T.H. 40 units in 5% glucose should be given intravenously. Caffeine sodium benzoate or other stimulants may be used if necessary. Cyanosis should be treated by administration of oxygen.

Identification of Common Stinging Insects[7]

It is important for the physician to learn the exact identity of the stinging insect, since immunization with another type might provide the patient with protection against the common allergen but fail to protect against the type-specific variety.

In many cases, the layman is unable to identify the offending insect species, but the physician, with a little knowledge of the haunts and habitats and a few simple questions, can solve the problem in instances where the patient is unable to describe the insect but knows the circumstances under which he was stung.

Order Hymenoptera

Bees *(Apoidea)*

1. Honey Bee (Figure 1)
   - —Yellow in color
   - —Found collecting nectar and pollen from white clover in lawns and other flowers
   - —Common habitat (social)
     - a) Hollows in trees
     - b) Hollows in buildings (rarely)
     - c) Bee hives
   - —Only stinging insect that loses stinger
   - —Most common of stinging insects
2. Bumble Bee
   - —Large, black and yellow, hairy bodies
   - —Found collecting nectar from flowering plants
   - —Common habitat (social)
     - a) Like to build nests in animal fur or vegetable fibers (cotton stuffing)
     - b) Mice nests, in barns or ground
     - c) Stuffing inside furniture (inside or outside buildings)
     - d) Stuffing inside old car seats
     - e) Straw in barns, or other storage places
3. Solitary Bee
   - —Abdomen yellow with black stripes, smaller than Honey bee
   - —Nest in ground—colony tendency, individual dwellings
   - —Commonly known as sweat bees—attracted to perspiration



FIGURE 1
Honey Bee
Apis Mellipica

Wasps *(Vespidae)*

1. Yellow Jackets
   - —Yellow with black stripes, smaller than bees
   - —Nest habitats
     - a) Usually in ground
     - b) Under porches
     - c) Never in the open
     - d) Nests are round and paper-like
   - —Most common stinging insect other than bees
   - —Not found around flowers because all wasps live on other small insects
   - —200 to 300 individuals in nest
2. Paper Wasps (Figure 2)
   - —Reddish or brown with black stripes,

slender with spindle-shaped abdomen

—Nest habitats

a) Usually build under roof (eaves)

b) 10 to 60 individuals per nest

c) Circular horizontal comb of paper cells

3. Hornets

—Large and black with yellowish-white markings

—Nest habitats

a) Large round paper nests found in trees

Pointers to Remember

1. Usually, wasps will sting only when nests are threatened by people.



FIGURE 2
Wasp
Polistes Canadensis Annular

2. Honey bees are only stinging insects that lose their stinger.
3. Paper wasps will attack people working around eaves.

Physician-Patient Questions

Color of insect?
Where patient was stung?
Did the insect lose its stinger?
Is there a nest nearby? If so, describe it.

Example (Patient did not see insect)

Doctor: Where did the sting occur?

Patient: While pruning an apple tree.

Doctor: Did it lose its stinger?

Patient: No.

(At this point, we assume that it is not a bee; therefore, the only other stinging insect which makes its nest in a tree is a hornet.)

Doctor: Did you notice any large round paperlike nests in the tree with insects flying out?

Patient: Yes.

(Doctor then concludes that it was a hornet, and can now proceed with a skin test for positive identification.)

Persons having had anaphylactic reactions to bee or wasp stings should receive hyposensitization treatment with the appropriate extract. In addition, persons experiencing large local swellings also should receive treatment since the severity of reactions has a tendency to increase with subsequent stings. Since many persons do not know what insect stings them, testing with Honey bee, Bumble bee, Paper wasp, Yellow Jacket, and Hornet extracts should be done. Gel diffusion studies by Stier and Foubert[8] indicate that bee, wasp, Yellow Hornet, Black Hornet and Yellow Jacket extracts contain 4-6 antigenic fractions. Probably two of these are immunologically identical to all other insects. However, the remaining 2-4 antigenic fractions are specifically characteristic of the individual insect species and are not shared with other species.

Sensitization Variations

Benson documented patients who had reactions to bee stings but no reaction to wasp or hornet stings. Similarly, some patients displayed skin reactions to one stinging insect and not to others. Stier and Foubert[8] state that this indicates that man can become sensitized to individual antigenic fractions to the complete or partial occlusion of others. Sensitization may be to antigens shared by all stinging insects, to antigen contained in only a single species or to antigens of both groups. To conclude that extracts of a single insect would effectively hyposensitize all patients to all other stinging insects would, therefore, be wrong.

If the clinical experience of a sensitive patient indicated (1) that the shocking insect was accurately identified, and (2) that the patient suffered no reaction when stung by other insects, then the use of a single insect antigen should be safe. In most cases,

neither provision can be fulfilled. Therefore, to assure adequate protection for the patient, an antigen should be used which contains, at least, extracts of Honey bee, wasp, Yellow Jacket, and hornet.

Intradermal Testing

Before starting hyposensitization treatment, intradermal tests of the extracts should be made on the patient. The application of these tests should always be on the patient's arm or leg where a tourniquet may be applied proximally to the test. Emergency drugs, as outlined previously, in treatment of severe reactions to bee stings should be available.

It is recommended that intradermal testing begin with a strength no stronger than 1:10 million dilution. If this test is negative, after 15 minutes, a test ten times stronger (1:1 million) may be given. It is probably best not to test to more than three dilutions at one office visit. Mueller has recommended that patients should not be tested within 10 days of their sting reactions because they are in a refractory state, and he found patients so tested had little skin sensitivity.

It is the consensus of opinion of most allergists that patients should receive hyposensitization treatment for at least three or four years before discontinuing it.

Absolute evidence for discontinuing treatment might consist of a person being in a different environment where a sting would be unlikely or a person having had repeated stings over a long period of time without untoward reactions. ◄

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BIBLIOGRAPHY

1. Parrish, Henry M.: "Deaths from Bites and Stings of Venomous Animals and Insects in the United States." *Arch. Int. Med.*, 104-198, 1959.
2. Schenkin, J. R.; Tamiside, J.; Winter, F. D.: "Hypersensitivity to Bee Sting." *Am. J. Clin. Path.* 23:1216, 1953.
3. Hegner, R. W.: "*Invertebrate Zoology.*" The Macmillan Company, N. Y., 1953.
4. "*Bisse und Sticke Einiger Gifttiere, Ihre Behandlung Mit Calcium.*" Published Sandoz, A. G., Basel, Switzerland.
5. Langer, J.: "Uber das Gift Unserer Hönigsbiene." *Arch. für Exper. Path. U. Pharmacol.* 38:381, 1896-1897.
6. Killoway, C. H.: "Animal Poisons." *Ann. Rev. Biochem.*, 8:541, 1939.
7. Herberger, James, Dept. of Entomology, Ohio State University, personal communication.
8. Stier, Robert A.; Foubert, Edward L.: "Antigenic Relationships between Honey Bees, Wasps, Yellow Jackets, and Yellow and Black Hornets." *J. Allergy*, 29:13, 1958.

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The West Virginia Story

THE KERR-MILLS LAW must be basically sound. The socializers have just been proving in West Virginia that they think the law will never be discredited if it is given half a chance of proving itself. Recent events would indicate that the socializers felt that it was necessary to introduce some shady dealings and sharp practices in order to make Kerr-Mills look bad. They must have believed that if Kerr-Mills was administered correctly it would do such a good job that the King-Anderson proposals would never pass.

The nationally advertised "crisis" in Kerr-Mills type care of the medically indigent in West Virginia has been found to have been manufactured from start to finish by the office of the State Commissioner of Welfare with the aid and cooperation of the Federal Department of Health, Education and Welfare.

Sabotage of the Kerr-Mills program was initiated by setting the economic standards for admission to the program on a very loose and liberal basis. Originally a married couple could qualify for benefits with an annual income of $3,000, liquid assets of $7,500, ownership of a home without limit, plus other property, not to exceed $20,000.

On November 28, 1961, the State Department of Welfare announced that the program was going broke, and drastic revisions were made in the fee schedule. For instance the surgical fee schedule was reduced from a maximum allowance of $187.50 to $40.50. Hospitals which previously received reimbursement based on cost were limited to $20.00 a day. Pharmacists who had previously received retail prices for prescriptions were reduced to manufacturer's cost, plus 75c per prescription.

All the above was accomplished without consultation with the medical association, hospital association or pharmaceutical association. At this time a new contract, which provided for compensation at any level the State Commissioner chose, was sent to physicians, with the stipulation that only those physicians who signed the contract would participate in other state welfare programs whether a part of Kerr-Mills or not.

Also at about this same time, a financial emergency was declared by the State Com-

missioner of Welfare. Later an audit showed that funds were available to carry the program through the current fiscal year at a considerably higher rate than had been the experience for the previous four months.

In newspaper and magazine articles the Welfare Commissioner was quoted as saying that the West Virginia experience indicated the need for handling the problem under the Social Security system, and that a state just didn't have enough resources to carry out an adequate program.

Not long after this was published, the West Virginia legislature appropriated enough money to provide, along with the matching federal funds, for a completely adequate program for the next fiscal year.

The Welfare Commissioner was also quoted as saying that the program could be put on a working basis if the cooperation of physicians, hospitals, druggists, nursing homes, and legislators could be obtained. This he shouldn't have said. The medical association immediately pointed out that their repeated recommendations for joint conference committees to assist in management had been ignored.

The State Pharmaceutical Association previously had offered the services of a person "free of charge" to look over the drug vouchers for irregularities. This offer was not accepted.

The entire record adds up to the finest compliment the Kerr-Mills program could possibly achieve. In addition to setting eligibility requirements so loosely as to admit almost any retired person, even some rich ones, and in addition to soliciting patrons for the Kerr-Mills program, it was necessary to issue grossly false financial reports in order to make it look bad. The Department of Health, Education and Welfare, by the state commissioner's own testimony, made recommendations at all times and also made audits.

The Wheeling Intelligencer in an editorial commented in part as follows: "It is no accident, it seems fair to say, that the difficulties of Medicare (term used for Kerr-Mills) in West Virginia have brought smug smiles to the faces of Welfare Secretary Ribicoff and his associates. Mr. Ribicoff is quoted in so reliable a publication as the *U. S. News and World Report* as having referred in an interview to 'the news indicating that West Virginia is going broke under Kerr-Mills'. This, of course, is utter nonsense. Not only is there no evidence that West Virginia is going broke, but no evidence that there has been or is any legitimate emergency in the affairs of Medicare."

Task Force Report

SECRETARY OF HEALTH, Education, and Welfare Abraham Ribicoff has announced completion of a special Task Force report on the control of syphilis in the United States.

Chairman of the five-member group appointed last year by Dr. Luther L. Terry, Surgeon General of the Public Health Service, is Dr. Leona Baumgartner, New York City Health Commissioner.

In its report to the Surgeon General, the Task Force pointed out that almost 19,000 persons contracted infectious syphilis during fiscal year 1961, the highest number of cases since 1950. The group added that it is "particularly disturbed" with:

1. Evidence of a chain reaction in the spread of syphilis infection, especially among teenagers;
2. Evidence that the actual number of cases occurring far outnumber the cases reported;
3. Evidence that effective technics of control and therapy to stop the spread of syphilis are available but not applied widely enough;
4. Evidence that unless a vigorous, stepped-up program is inaugurated now, the increased spread of syphilis currently being observed may be accelerated.

However, according to the report "it is the concensus of the Task Force that the rising trend of infectious syphilis can be reversed through intensification and further improvement of the casefinding process, through quicker access to, and use of, operational information, through increased par-

ticipation in venereal disease control by private physicians, and through a fact-based, plain-talking venereal disease education effort."

Setting a six-point 10-year goal for the elimination of syphilis as a public health hazard, the Task Force called for:

- An intensive national effort providing for at least two visits a year by a qualified health worker to the country's 100,000 general practitioners and one visit per year to the remaining 130,000 physicians.
- Establishment of a program to insure that all blood processing laboratories report to health departments all positive specimens by name of patient.
- Intensification and extension of current interview-investigation services to cover all infectious syphilis cases.
- Development of a comprehensive and dynamic education program for professional workers and the general public.
- Continuation of research in syphilis immunology, therapy, and laboratory procedure together with greater expansion of research in adolescent and young adult sex behavior.
- Unstinted support of the program by Federal, State, and local governments even after the reported number of syphilis cases begins to decline.

The Task Force estimated the cost of its proposals at $3½ million annually over funds presently available.

In releasing the Task Force report Mr. Ribicoff said, "I am exceedingly grateful to this distinguished group of experts for a penetrating and far-seeing analysis of this most pressing health problem. I assure them and the American people that this report will be intensively studied within the Public Health Service and the Department itself. Along with Surgeon General Terry, I too share the concern of this group with the growing problem of syphilis in this country."

The study committee was appointed in conformance with an instruction from the House Appropriations Committee. In last year's report on the Department of Health, Education, and Welfare budget, the Committee said it would expect recommendations this year from the Public Health Service for an effective campaign against syphilis.—News Release—U. S. Department of Health, Education and Welfare.

Guest Editorials

"Mix"

HISTORY BOOKS are compendia of stories of violence, catastrophe and humiliating servility; Roman life under Caligula, London life under Richard the Third, Eurasia under Genghis Khan, not to mention the dictators of much later date. The old dictum that "Eternal vigilance is the price of liberty" is still in fashion today. On a smaller scale, but no less important, medical liberty is under constant threat.

Due to our preoccupation with our work at the hospital and office we are guilty of a widespread lack of knowledge and interest in the political side of medicine. Our naivé and cloistered attitude shades us from comprehending the enormity of complacency.

We must not forget that we are also citizens of the community and must share its responsibilities by being active in the lay organizations. By acquainting and becoming acquainted with the other members we tend to form a cohesive group to confront and resist those forces dedicated to bring about conditions which would vitiate our progress. Our efforts must be all embracive to include non-professional as well as medical organizations, like I-HOPE, etc.

Our insularity will be like that of an anchorite on a lonely mountain top, or like St. Simeon of Stylites atop his tall pillar, sharing their lofty view and enervation; and perhaps epistaxis, figuratively and literally.

Franklin F. Premuda, M.D., Co-Editor
The Lake County Medical News,
March, 1962

Value of Seat Belts

IT IS SELDOM recognized that approximately 30 percent of all vehicles manufactured are involved, at one time or another, in injury and fatality-producing accidents. A large number of these accidents occur at speeds of under 40 miles an hour. Physicians probably run more of a risk because of the substantial mileage they drive, often under hazardous conditions.

The importance of using seat belts to minimize the effects of accidents on both short and long trips is well established. The automotive crash injury research at Cornell University and other highly-regarded studies show that many lives can be saved and countless disabling injuries avoided through the use of seat belts in automobiles. Yet many persons, including physicians, have not yet taken advantage of this important safety feature.

When an automobile crashes, the occupants continue to move forward until they hit either the street or some hard portion of the interior. The seat belt serves to "tie" the occupants in the vehicle so that when the vehicle crashes, their deceleration tends to be much less abrupt and consequently severe injury is sustained less often.

Many injuries and deaths result from the driver or a passenger being ejected at the time of impact. Ejection occurs in about 14 percent of injury-producing accidents. Researchers at Cornell found that ejection multiplies by five times the risk of dangerous or fatal injury. Seat belts keep people from being ejected. Other injuries and deaths result from striking the steering wheel assembly and other surfaces or objects in the car.

Some of the reasons people give for not using seat belts are that they tend to be uncomfortable, they take too long to put on and take off, and they get dirty if allowed to drag on the floor.

How can these reasons be equated with the benefits?

It is a proved fact that seat belt users have up to 35 percent less risk of serious injury from these hazards than nonusers. Lap belts, the familiar types of seat belt used in this country, are inexpensive and simple to attach to cars, and if they are worn properly, they are comfortable. In fact, consistent users of seat belts say they are held more firmly in their seat, which adds to the comfort of riding. Passengers in the rear seat who are wearing seat belts also receive excellent protection.

Seat belts are not a panacea for all automobile injuries. But no one can dispute the fact that by using seat belts at all times, the chances of being injured or killed in an automobile accident are greatly diminished. The seat belt will keep the driver behind the wheel in any emergency maneuver, thereby giving him the opportunity he might need to get out of a serious situation. Seat belts also are designed to be opened easily with either hand so the passenger can free himself in seconds.

Common sense dictates that seat belts should be a standard safety feature in all cars and that they should be used. You owe it to yourself, your family, and your patients to save yourself from injury by wearing seat belts. As a physician you have an excellent opportunity to set a good example for others to follow.

Granville W. Larimore, M.D.,
Deputy Commissioner of Health
for the State of New York

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Voluntary Health Agencies

APPROVED VOLUNTARY health agencies are a unique American institution. The yeoman service which they perform for the medical profession I feel is not generally appreciated by the practicing physician. Medicine is changing rapidly. New technics of diagnosis and treatment appear daily. The physician has a real problem to know

which are useful and which are not, or even to know of the existence of the new technics.

The problem of getting the practical and useful advances to the man who can use them is becoming increasingly acute. The reputable health agencies render a tremendous service in promoting the screening and sifting of these advances by authorities in each field, and by employing their communication facilities to send the information to the practicing physician. This function of health agencies is most valuable in keeping medicine as it is practiced as current as possible.

The changing nature of the constellation of things that constitute medical practice puts the first responsibility of deriving the advantages of progress on the individual patient. Changing political philosophy removes any responsibility of the individual doing anything for himself, and leaves the voluntary health agencies as the last bastion for encouraging individuals to help themselves.

The voluntary health agencies render a service to the populace in continually drumming into their ears—protect yourself—see your doctor. This is something that doctors, in good taste, cannot do themselves. Doctors have no greater ally than voluntary health agencies. Voluntary health agencies are seeking medical leadership. It then ill-behooves doctors to criticize and suppress voluntary health agencies. We should furnish them the leadership they need and seek. Much mutual benefit can be gained by both the health agencies and the medical profession.

Robert P. Acher, M.D.
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Editorial Notes . . .

The drug treatment of tuberculosis has reduced its mortality rate, lessened the need for segregated treatment, and greatly decreased the number of patients who require hospitalization. The Veterans Administration finds that the number of patients with tuberculosis in its hospitals has fallen from 9,037 to 8,153 in the past year, a decrease of 900. The downward trend started in 1954 and has vacated 8,000 beds since then. The VA now has only eight tuberculosis hospitals; it had 21 in 1954. Two-thirds of the VA tuberculosis patients are now cared for in general hospitals.

Evidence that modern doctors adhere to the tenets of the Hippocratic Oath, at least in regard to the teaching of medical students, is afforded by a survey recently made by the Association of American Medical Colleges. Data from 71 of the American medical schools show that the part-time faculty members contribute time to teaching which in the aggregate equals the full-time work of 2,479 teachers. Such teaching is provided, to use the phraseology of Hippocrates, "without fee or stipulation." If it were to be compensated for at the median full-time salary of $12,000 per year, the fee would be $28,300,000.00.

Merger plans of the California Medical Association and the California Osteopathic Association included the transformation of the California osteopathic school into a medical school. The Los Angeles College of Osteopathic Physicians has been renamed the California College of Medicine and on February 15 was accredited as a medical school by the Council on Medical Education and Hospitals of the American Medical Association and the Association of American Medical Colleges. The students who graduate this June will receive M.D. degrees.

The Detroit Medical News thinks that the Kerr-Mills Act is being administered by the Wayne County Board of Supervisors in such a way as to create discontent with the Act. Contrary to the manner of administration in all other Michigan counties, Wayne County patients have been denied free choice of physician and hospital by sending them to

the public hospital, the Wayne County General, and by refusing to pay more than 75% of the normal charges if the patients get into a private hospital. All this, in spite of the fact that Wayne County is liable for only 10% of the welfare bills under Kerr-Mills, the state and federal governments paying the remainder. Detroit doctors are getting ready to remind the elderly citizens that they are being treated at present by politicians, and would be forever, if Kerr-Mills goes by the boards. The doctors are making a vigorous campaign to acquaint the public with the facts and to have Kerr-Mills operate as it should.

Hospitals 'in the round' have had a big play, at least in the talking and planning phases. The idea is new and appealing, and may have many advantages, but is still to be proven by actual performance. The circular construction was first thought of because such a building has less outside surface in relation to its cubage than a rectangular building and is therefore easier to heat and air condition. A central core of service and administrative units with the patients on the periphery has been touted as allowing the best patient care with a minimum of walking. Lower construction costs have also been mentioned; however Dr. Anthony J. J. Rourke, in a recent issue of *Hospitals* expresses doubts as to economical construction. He thinks that, since most of the construction equipment is made for square construction, circular construction may prove to be considerably higher. Dr. Rourke also has reservations about the possible savings in steps and patient-care. He thinks that the round hospital should be thoroughly investigated before very many are built.

The Veterans Administration is cooperating with the Civil Defense program by working with the Public Health Service in the storage of Civil Defense packaged emergency hospitals. VA personnel are receiving training in setting up and operating the emergency 200-bed hospitals, and expect to teach community personnel to do so. The VA operates about eight percent of the hospital bed capacity of the U. S. Many of its hospitals are located away from target areas and would be able to function if the country was attacked. More than 1,900 of the emergency packaged hospitals are stored at suitable sites. About 70 employees, including five physicians and 15 nurses, can set up and operate one of the hospitals in two hours.

Stricter amphetamine and barbiturate control is needed. Senator Dodd of Connecticut is chairman of a Senate subcommittee investigating juvenile delinquency. Committee hearings on delinquency revealed the necessity of tightening controls on so-called "pep pills." Senator Dodd and Senator Wiley of Wisconsin have introduced a bill to double penalties for illegal sales and to tighten the regulations governing distribution. The Pharmaceutical Manufacturers Association has supported the bill and is conducting an informational campaign to encourage its enactment.

The Federal Hazardous Substances Labeling Act became fully effective on February 1. It celebrated its third seizure of improperly labeled poison in March during National Poison Prevention Week, after a child drank some turpentine and died. Some 23,000 quarts and 15,000 pints of turpentine were seized when the Food and Drug Administration charged that the proper warnings and other information was not on the label. One of the two other seizure cases involved the death of a child from accidental ingestion. FDA said the turpentine label lacked the word "Danger," the affirmative statement "Harmful or Fatal if Swallowed," precautionary measures describing action to be followed and avoided, first aid instructions, and the statement "Keep Out of Reach of Children" or its equivalent.

Hospitals, **the Journal of the American Hospital Association, commented recently on the success of the certification program of the Educational Council for Foreign Medical Graduates (ECFMG).** Since 1958, ECFMG has been examining foreign graduates to determine their medical knowledge

and their ability to communicate in English with a view to establishing their aptitude for positions as house officers in American hospitals. Since June of 1961 the AMA and the Hospital Association has made it a rule that no foreign graduate could serve as a house officer unless the ECFMG examination had been passed. At that time dire predictions were made that hospital services would be decimated and that international complications were imminent if the rule was followed. In spite of the fact that no sensible person would agree to have a non-English speaking or poorly educated doctor caring for his patients in his absence, there were charges that the AMA and the AHA were guilty of closed-shop tactics and were giving the patients a bum deal, and that the ECFMG was conducting an unfair and tricky examination. None of these things came true. The program has been an unqualified success. In 1961, 3,641 foreign graduates qualified under the ECFMG, half again as many as passed the exam in the three years previous.

MAPTI (Midwest Airborne Program for Television Instruction) is an educational experiment under the supervision of Purdue University. The television broadcaster is contained within a large plane which flies at an altitude of over 28,000 feet over Montpelier, Ind. The broadcast area is enlarged by the altitude to a radius of 250 miles, and reaches into southern Ontario, southern Michigan, parts of Wisconsin, Illinois and Kentucky, and all of Ohio and Indiana. It is estimated that there are about 40,000 physicians within the range of the broadcast. Professional medical programs would be possible if they were adequately supported. A special TV receiver for a group or a home converter would be necessary. Purdue University welcomes inquiries from physicians.

The recent move of ISMA Headquarters Office to the new office building at 3935 N. Meridian Street, almost coincided with the move of the Board of Registry of Medical Technologists to a newly constructed headquarters in Muncie. Dr. Lall Montgomery, for many years Associate Editor of *The Journal*, has been the registry chairman for 22 years. On the occasion of dedicating the registry's new home Dr. Montgomery was commended by a plaque for his "selfless dedication, capable leadership and untiring service." The purpose of the board of registry is to set and supervise standards for medical technology. ◄

HEADQUARTERS DEDICATION

Make a note in your diary to attend

the Dedication Ceremony of the new

Headquarters of the ISMA

Date: Sunday, July 15

Time: 2:00 p.m.

Place: 3935 North Meridian Street, Indianapolis

President's Page

WASHINGTON LEGISLATIVE TRIP

I have just returned from Washington D.C., along with other officers of the ISMA where we conferred with the members of the Congress from the State of Indiana, and also with several from other states who have evidenced interest in the problems of medicine and free enterprise. The subjects discussed with these members of Congress were mostly medical in nature and most specifically at this time the King-Anderson Bill. Of course this trip was a bi-partisan affair for we visited and talked with members of both parties, some having a definite difference of opinion with that of organized medicine.



This trip is an annual activity of the ISMA and is planned to coincide datewise with the annual meeting of the United States Chamber of Commerce. An important part of the trip is the annual dinner given by the Indiana Chamber of Commerce honoring the Indiana members of the Congress and which we always attend and mingle with those attending this function from our state.

This year we happened to be in Washington at the time of the meeting between the President and representatives of the AMA which the President requested. This was most interesting to us because we were able to obtain a first hand report of this meeting from some of those who attended, just a few hours after the meeting. You all saw the report of the meeting in the press which was accurate in substance but lacked many details which we were able to receive.

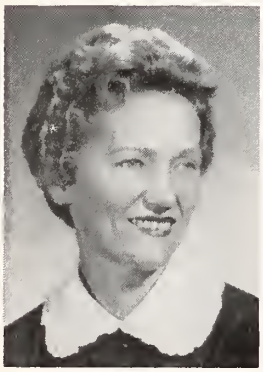
Now a few words as to the value of this annual trip. We were one of the first states to begin this procedure a number of years ago and many other states have followed our custom. It is the opinion of the Washington AMA office that this trip and the contacts which we make are extremely valuable. Surely contacting personally and talking with them regarding our problems is of great value to our Association. The officers of your Association believe that this is one of the most valuable activities which we perform and are glad to report that we believe the trip this year has been a most successful one.

The Woman's Auxiliary

REPORTS TO ISMA

The House of Delegates of the Woman's Auxiliary to the ISMA held its annual meeting at Elkhart April 26th and 27th.

From the workshop breakfast on Thursday morning until the close of activities on Friday afternoon, the Elkhart Hotel was a busy place, and you've seldom seen displayed more enthusiastic support of Auxiliary projects. The Country Store did a big business selling all sorts of things from hats and flowers to candy and quilts, from counties all over the state, profits to AMA-ERF.



Every speaker stressed the importance of our Legislative program, and urged us on to greater efforts in our fight against socialized medicine. The county reports showed that much has been done in Indiana this year in the field of legislation, in support of AMEF, and in recruiting and financially assisting students in the health career fields. Sharing with each other what can be done, and what is being done is a stimulus to us all.

Noble-LaGrange, Elkhart, Tippecanoe, LaPorte, and Vigo counties served as hostesses for special events during the convention. Hats off to these people as well as to Mrs. Kintner and the committee on convention arrangements (Mrs. Richard Swihart, Chr.) for a memorable meeting.

Mary Johnson





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SEARLE

Research in the Service of Medicine

Re: H. R. 4222:

A Kirkpatrick Memorial Lecture Given at Ball State Teachers College

DON E. WOOD, M.D.
Indianapolis
March 8, 1962

DR. TOMLIN, DR. EMMONS, Mr. Burkhardt and to you Dr. Covalt, I am sure that this dedicatory progam must be a tremendous satisfaction—to be able to honor your parents in such a way. Certainly, in my own mind, I can think of nothing that would give me more pleasure and more satisfaction.

. . . . . .

Tonight I want to talk principally about financing of "medical care for the aged" through the social security mechanism. Today those of you who had the opportunity, which I am sorry I did not, of attending the workshops were stimulated in the discussions concerning this problem of how to best care for our senior citizens.

As you know, the Congress is presently considering a measure which, in my opinion, will seriously threaten the health care of our senior citizens if it is enacted. I choose this particular subject because, as you can see by the introduction I had, my interest as a physician in this particular field includes not only the physical health of people who are age 65 and over, but their fiscal well-being too. My interest in legislation has been varied and widespread. Certainly I think that Mr. Jesse Dickinson, who is a legislator from South Bend, will know that I have been over to see him in the General Assembly and have talked to him on occasions about these problems.

The measure now at issue is known as H. R. 4222, or the King-Anderson Bill.

The controversy over this proposal has assumed national proportions and has been often characterized as the "Great National Debate."

I should like to make clear at the onset that the issue is how health care for the aged should be financed and who should receive the benefits. *The issue is not medical care for the aged.* So often I hear that the doctors have got some axe to grind in this thing; that they are looking out for their own interests. I want to say that if this bill is passed tomorrow it will not mean one dollar of income to me or any other private practitioner. Our interest is mainly and solely directed to saving tax dollars for the people of Indiana and the people of the United States.

Calls for Federal Financing

Just what does this King Bill provide? I think you should know. The proposal, if enacted, would call for the financing, by the federal government, of certain health care benefits for individuals 65 years of age and over who are now on social security or who receive benefits from the Railroad Retirement Act.

Specifically, the bill would provide up to 90 days of in-patient hospitalization—that is per illness—in a semi-private accommoda-

tion. This is subject to a $10 per day deductible for the first nine days with a minimal deductibility of $20. So it is not a "free," all-out inclusive medical care program. You've got to pay. I know of nothing that is free today.

To be eligible for hospitalization for the same or for a new condition a period of 90 days would have to elapse since the individual was last an in-patient in a hospital or a nursing home.

Hospitalization would include bed and board and other services normally provided in a hospital. Excluded would be medical or surgical service except in the field of pathology, radiology, anesthesiology and physiatry; however, both medical and surgical treatment could be given by residents and interns in a teaching hospital. Private duty nursing would not be authorized in any hospital. It would also authorize payment of up to 180 days of skilled nursing home care for conditions for which the patient was previously treated in the hospital.

Now both the hospitalization and nursing home care would be limited during a period of illness to 150 units of care. A unit of service, as set out in the bill, is equal to one day in a hospital or two days in a nursing home so that an individual can get a maximum of 90 days of hospitalization and 120 days of nursing home care for each illness. In addition to this, the bill would authorize payment for up to 240 home nursing visits in a calendar year by a home health agency. Out-patient hospital diagnostic services would be subject to a $20 deductibility for each medical evaluation.

An eligible individual would be able to receive the authorized service from any provider, who meets standards set by regulations promulgated by the Secretary of Health, Education and Welfare. Payment to the providers of service would be based on "reasonable costs for the service." The Secretary of HEW would prescribe regulations for determining what these "reasonable costs" would be.

Now, to meet the costs of such a program the wage base on which social security taxes are paid would be increased from its present rate of $4,800 a year to $5,200 per year and this would begin annually next year if the bill is enacted. Further, the social security tax rate itself would be markedly increased in 1963.

40% Raise Indicated

Actually, when other social security tax increases are considered for programs which will definitely become effective, the average working man will be paying 40% more in social security if the King Bill becomes the law of the land. This, to my way of thinking at least, is no small, insignificant boost!

Some of you, I know, are wondering about age expectancy. An insurance actuary recently explained to me this "expectancy formula": if you take your present age and subtract it from 80, multiply that by seven, and divide by ten, you will have the number of years you have left to live. This is a little astonishing but it makes you think.

When I was talking to one of my patients just recently—a delightful lady, 85 years old—she asked me about my interest in this particular field. The next time I went to see her she gave me this little poem and I would like to read it to you. It sets the theme for me in a sense.

"There is nothing whatever the matter with me
I'm as healthy as I can be.
I have arthritis in both of my knees,
And when I talk, I talk with a wheeze.
My pulse is weak and my blood is thin,
But I'm awfully well for the shape I'm in.
My teeth eventually have to all come out;
My diet I hate to think about.
I'm overweight and I can't get thin,
But I'm awfully well for the shape I'm in.
Arch supports I have for my feet
Or I wouldn't be able to walk the street.
Sleep is denied me every night
And every morning I am a sight.
My memory is failing and my head is in a spin
And I'm practically leery—from what do you guess—aspirin.
But I'm awfully well for the shape I'm in.
Now the moral is, as this tale may unfold,
That for you and me who are growing old

It is better to say I'm fine with a grin
Than to let them know really the shape we are in."

The Forand Bill

As many of you recall in 1952, 1956, 1958, we have had bills introduced into the Congress which have to do with social welfare programs particularly as they refer to medical care for the population of the United States. The last one was introduced by Representative Forand, was popularly known as the Forand Bill and was for the care of the aged over 65. This measure was based on the false assumption that older people somehow constitute a distinct and separate part, a group separate from the rest of we Americans. Now if you will think of the older persons that you know—are they all the same? I don't think so—of course not.

There are some who are rich, some poor, some well-to-do and some who are barely self-sufficient. Their pleasures differ and certainly so does their thinking. And, I might add, so does their health. To me the only thing they have in common is the age 65 itself. I'm not so sure that 65 ought to be the mystical age in which people should be sidelined. I think that there are many people who at 65 are capable of continuing to give to our society a great, great service.

I'm sure that you can think of many in national, international and world prominence today who are beyond this magical age which was established in Germany by von Enderburg. But, otherwise they are all individuals. The 65th birthday as I said, does not change them overnight, it doesn't change them into carbon copies of one another. I think this is why we physicians who know that there is no such thing as a mass diagnosis or a mass cure, believe that any legislation dealing with the health care of the aged must be flexible enough to fit the individual.

Not all of the aged need help. Some do—most don't. The medical profession is in agreement that it believes in helping those who need help. It sees a vast difference between a helping hand extended to those who need it and a hand-out to those aged regardless of need.

Thank goodness the first session of the 87th Congress saw the problem in the same way last year when it undertook to help our older people who need help. Congress passed the Kerr-Mills Medical Aid for the Aged Law with the wholehearted support of the medical profession because some of our citizens over 65 do need assistance. I emphasize the word "some."

Surveys show that they are far fewer in number than they are represented to be and that the vast majority are in reasonably good health and in relatively good financial shape.

No Need for This Type Legislation

A recent survey showed that of persons over 65 only 20% or fewer are sick to the degree that illness limited their normal activity. Now I don't suggest—and I'm sure that no doctor would suggest—that the aged are as healthy as those who are in their prime. I don't suggest that some are not seriously ill, but I do say emphatically that most of them are in reasonably good health.

So I ask, is there a need for this type of legislation that has been proposed under the King Bill? An examination of the facts can lead to only one conclusion—and in my opinion the answer to this is *no.*

I would like to give you some of the interesting facts concerned with the health and economic conditions of the aged. Statistics I know sometimes are boring but I think you will find these quite interesting.

The median net worth of the aged social security couple is $9,620 and it is increasing steadily. I think all of you who have parents can really think that they have brought you up with the idea in mind—put away a dollar for the rainy day. At least this is what my parents always told me. They put it away to take care of me, actually. This is the way they were brought up, this is why these figures are present.

Now half of all the social security beneficiaries have a net worth of over $9,000—65% have a net worth of $5,000—and about 35% have a net worth over $15,000. Of approximately 17 million people in this age group, 4 million, or 24%, are still employed, still productive; 13½ million, or 80%, are earning income or receiving social security benefits or both. There are 2½ million, or

14%, that are on public assistance. Only 1 ½ million or 8½% have no income from employment and are not on public assistance. Over 70% of the aged own their own homes and think of this—87% of them are mortgage free. The older the group the greater its liquid assets; 41% of those over 65 have liquid assets of over $2,000 compared to 4% of the 18 to 24 age group, 13% of the 25 to 34 age group, 30% of the 45 to 54 age group and 37% of the 55 to 64 age group.

More Private Plans

Private pension plans are growing. At the end of 1960, pension plans covered 20 million employees; 53% or about 9 million of the aged now have some type of health insurance coverage. This is an increase since 1952 of some 6 million persons. Seven out of every ten workers covered under group health insurance policies issued in 1960 have the right to retain protection after retirement.

What about the health status of the aged? There are no special sicknesses of the aged that I am aware of. The leading causes of death among the aged are the same as for those 45 to 65. What are these leading causes of death in this entire group 45 to 65? Heart disease, cancer, cerebrovascular accidents, better known as stroke. What is going to keep the man aged 64—one year away from the "magical age"—from saying to the Congress: "Look, why should a man 65 get this benefit when I don't?" Why shouldn't a man 63 ask—why shouldn't he? Every Congressional session there has been some change in the social security act, and I certainly think that you can expect that it will continue.

Now only 14% of those over 65 have a chronic illness to the extent that it affects their mobility and only 5% have mobility affected to the extent that they can be considered disabled. The only logical conclusion is that a great majority of our aged are neither in poor health nor destitute. Most are not and there are public and private programs to take care of those that may be. The social security approach will establish an irrevocable program financed by compulsory tax on all employees for the benefit of those 65 and over and covered by social security regardless of need. I think this is important—regardless of whether they need it or not they will be covered. And you will be paying the taxes for it.

I believe help should be given to those who need it but not to those who are able to take care of themselves.

Physicians are opposed to this legislation because they know it would seriously lower the quality of medical care. A program such as this would have an immediate effect of discouraging young men and young women from entering the medical profession. We need more doctors. The shortage of physicians would become acute.

Hospitals would be controlled and this would have an immediate effect on lowering the quality of medical care.

Even a cursory examination of foreign socialized medicine plans shows clearly that government control has lowered the quality of medical care. In Britain a new medical school has not been built since the inception of the program there and only one hospital has been built during the 14 years of health services nationalization in England. Think of that!

The United States offers the best medical care in the entire world in my opinion. It is no accident that the heads of state from all over the world come to the United States for medical care and by-pass their own socialized medical plans.

Limits Free Choice

The legislation now before Congress would limit the patients' free choice of hospitals to only those hospitals which sign an agreement with the government and to the physicians who practice in this hospital. Remember there are four groups of physicians in a hospital that would be included under this program. These are the full-time people in the fields that I mentioned—radiology, pathology, physiatry and anesthesiology.

The bill provides that a participating hospital must sign an agreement with the government—the patients would have to choose physicians who practice in these particular hospitals.

The direct effect of this provision is to control the patient's choice to freely select his doctor and his hospital. Where the pa-

tient's choice is regulated, the practice of medicine comes under the control of the regulator.

Wherever the U. S. Government puts its tax dollars, regulation follows. This is historically true. And, by the way, use the term "tax dollars" instead of "government funds"—the phrase carries more personal impact because we all pay taxes.

On page five of the bill it is stated, in effect, that nothing in the bill shall be construed to authorize any supervision or control over the practice of medicine or the manner in which medical services are provided. But a very important clause is added and this is—"except as otherwise specifically provided." Let's see what has been otherwise specifically provided which would control the practice of medicine.

The physicians in this country, and particularly the American Medical Association, have been criticized that they are too suspicious, that there are other established programs which have not ended up in government regulation. But when such people as Walter Reuther and Aime Forand say "just let us get this one bill passed so we can get a foot in the door and we'll modify the program so that we'll have total socialized medicine," there is real cause for reflection. This is why the medical profession is taking its present stand, and I think we have the facts to support it.

More Federal Control

Actually there is a total of 14 places in this bill which provide a regulation of some type by the Secretary of Health, Education and Welfare. As an example on page six—and I'm quoting from the bill—under the description of the services wherein the patient's hospital services are described it indicates that those services which are "customarily furnished" by a hospital would be covered. The Secretary of Health, Education and Welfare would determine what is "customarily furnished." And I think it is only right that when the federal government puts out its tax dollars it ought to have some control on what happens to the money.

The bill provides direct control over certain physicians when it covers medical or surgical services in the field of pathology, radiology, physiatry or anesthesiology and yet the services are given in a hospital by an intern or a resident in training under a teaching program approved by the Secretary of HEW.

Now the Secretary of HEW will ultimately, therefore, control the hospital and its residency teaching programs.

The bill requires providers of services to maintain adequate records; however, the determination of what is adequate would again depend upon the definition handed down from HEW.

Just in case I missed anything, on page 14 it indicates that the providers of services must meet "such other conditions of participation under this section as the secretary may find necessary." He's got it all wound up in one ball of wax in that last statement.

The federal government estimates that the cost of the King Bill would be a little over 1 billion dollars. Independent actuaries of major life insurance companies feel that this is about 100% short—it probably will be 2 billion or 2½ billion dollars.

When government proponents first estimated the cost of the nursing home provision under this bill, they estimated the cost would approximate 25 million dollars. They have since revised this estimate and they now claim that it would run somewhere between 25 million and 225 million. To my way of thinking this is quite a discrepancy!

I think it might be interesting to speak briefly in a comparative way about similar plans that occur in other countries.

Recently I read an article by Professor John Jukes, in *Fortune* Magazine, October, 1961. Professor Jukes and his wife are in England. He is the professor of Economic Organization at Oxford. And he has done this work under a grant of Alfred P. Sloan, Jr., in trying to find out the problem of socialized medicine. He said the experience of the British with their system of socialized medicine suggests that they were victims of an illusion. How does he arrive at that conclusion?—I think it is interesting to follow some of his reasoning because he feels that they started off on a logical plan and in a logical way. Suppose that this government, says Dr. Jukes, should give

free hair cuts, or in Indiana suppose provision was made for free veterinary service to an animal, then the demand for these services would sharply increase, particularly when they didn't cost anything.

He also mentions that the government then would expand its supply of the service to meet the enlarged demand. And the total consumption would be greater under those circumstances—far greater than the consumption under the plan before its inception. There would be no question about that. This is true in England as you know.

He makes the further point that the government in order to provide the means to honor its obligations of increasing the services would have to do it by an increase in taxation, or to indirectly impose certain other economies in the government in addition to the increase in taxation.

Demand Will Exceed Supply

Now let's suppose that the government does not or cannot increase the supply of these services — then what will happen? Right then and there will occur a shortage of these services. In other words the demand will be greater than the supply. If this occurs what to do? The government has a number of ways to meet this situation. The first way he mentions is rationing of these services. If such occurs it would be an all-out admission of the failure of the system.

The second thing the government could do would be to impose a price on the service. This would be an obvious departure from the original scheme. I think you can remember in England when this all started that prescriptions were free and the next thing they had to do was put a price on the prescription payable by the recipient from his own resources.

Let's suppose that the government did nothing — what would happen? It would then be a first come, first served basis. What would be the result of that? You would have people lined up waiting to get into the doctor's office. I think many of you have seen pictures and have heard of that line-up in doctors' offices in England. If this is true what would happen? If there was no legal reason—no legal prohibition to this particular thing that I'm going to say next — private supply would appear and what would be private supply? In England it has been the voluntary health insurance program—this is exactly what has happened. But the problem there lies in the fact that you then would have a double charge — the individual who pays for his own insurance program and also pays the federal government for his "free" health program. What would be the difference? The individual who buys his own voluntary health insurance would be buying for convenience sake so he wouldn't have to stand in line because the care that the doctor would give him would have to be the same.

I think that there are two critical changes that have occurred in England that—as I have mentioned—there have been two qualities of medical service. One has been that the fellow who has bought the voluntary insurance has bought it on the basis that he didn't have to wait. I think that the other thing is that when voluntary service makes its appearance everybody gets better service.

Two Health Care Programs Compared

Dr. Jukes makes another point that I find most interesting in that he compares Switzerland with Great Britain and their respective health care programs. As you know medical costs in Switzerland are met on a private basis the same as they are here in the United States; however, I think that the conditions of economics, population growth, etc., are otherwise the same in Switzerland. But the comparison of medical services are different where you have two similar countries economically.

In Switzerland the ratio of doctors per one thousand people is higher than in Great Britain.

Secondly, the hospital renewal program is quite evident in Switzerland. They are building new hospitals and have been building new hospitals continually as compared to the fact that, as mentioned before, in Britain there has only been one new hospital in the last fourteen years, under the same economic conditions, except that in one instance there is a private medical progam

by the people themselves as compared to a government program in England.

The other significant thing is the fact of better medical care in Switzerland. Their research programs are better. They have more medical students applying for places in their colleges.

It is also interesting that the waiting list for admissions to hospitals in Switzerland is practically non-existent, whereas the waiting in Great Britain for a simple operative procedure is about a year, maybe a little longer. I have heard various stories concerning the individual who wanted to be admitted to have an acute appendix taken out and couldn't get into the hospital. So about 18 months later he got a notice from the hospital that if he wanted to have his appendix out he could come on in. Just think of that! This is socialized medicine in Great Britain!

Now the King Bill, which we were talking about, would produce a system inevitably to be expanded into a full fledged program of socialized medicine for everyone.

If you would not take medicine's definition of socialized medicine perhaps you would take the definition found in Webster's New Collegiate Dictionary and I quote: "Socialized Medicine—administration by a group, by an organized group, a state or a nation of medical and hospital services to suit the needs of all members of a class or all classes or all members of the population deriving funds from assessments, philanthropy, taxation or other sources. Often identified with one particular form — state medicine."

You will find that the King Bill provides for the administration by the federal government of hospital services for all members of a class deriving funds from taxation and this measure fits the definition well.

I have told you in brief what the administration's proposal is and I have mentioned that the Congress has tried to work out the problem through the efforts of Senator Kerr and Representative Mills in adopting the Kerr-Mills Bill.

In Indiana we have not adopted the Kerr-Mills Bill. The Indiana State Medical Association went to the legislature in its 1961 session and presented the Kerr-Mills program but as you recall taxation again was a problem and the legislature was not of a mind to appropriate funds for this particular kind of a program. They elected, instead, to modify the present Old Age Assistance Program. Under this particular program they have established a fourth category for medical care only in addition to food, clothing and shelter. In other words those individuals who require food, clothing and shelter automatically come under the OAA Program and because of the Medical Association's interest in Kerr-Mills enactment, the fourth category of medical care only was added. This, they felt, would at the present time take care of the needs in Indiana without increasing the tax burden.

Recently the Medical Association found in a 30-day survey of 71 hospitals in Indiana that less than two percent of the patients 65 or over could not pay or make arrangements for payments of their own bills. This tends to strengthen the legislature's feelings regarding the welfare of our aged citizens.

We are hopeful that the next legislature will deem it wise to enact the Kerr-Mills Bill which calls for local units to decide who needs care — NOT the federal government with its blanket over-all plan, including persons of means who do not need it.

I want to again say that the medical profession will still take care of the medical needs of people over age 65 as they have done in the past and will continue to do in the future without regard as to whether this bill passes or does not pass.

As a physician I cannot support this legislation. As a citizen I cannot support this legislation. As a taxpayer I cannot support it. I urge you to consider the facts and reject the King Bill. I urge you to support the program that provides for those who are in need. I urge you to support the practice of medicine within the free enterprise system. I urge you to encourage the people in your local communities to take the responsibility that is theirs and not one for centralization in a bureaucratic set-up in Washington. I urge you to choose freedom.

Thank you very much. ◄



BUILDS *body tissue...*

BUILDS *sense of well-being in the weak and debilitated*

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NOW—the **highest** anabolic plus the **lowest** androgenic activity* with well-tolerated WINSTROL therapy

...for elderly patients with anorexia, asthenia and general debility—
MARKED IMPROVEMENT IN APPETITE, STRENGTH AND SENSE OF WELL-BEING

Fourteen patients, age 66 to 77, treated with Winstrol, usually in a dosage of 6 mg. daily, for various periods in order to correct underweight, weakness and chronic fatigue. Marked improvement occurred in appetite, sense of well-being and strength; almost all patients gained weight.

...for patients with osteoporosis and arthritis—
RELIEF OF PAIN, IMPROVEMENT IN MOBILITY

Twenty-one patients with arthritis treated with Winstrol for pain and limited mobility due to osteoporosis. With few exceptions, dosage was 6 mg. daily; duration of treatment varied from a few weeks to 6 months. In 8 patients relief of symptoms was excellent and in 6 moderate. Of the 7 persons in whom no relief was obtained, 5 had received treatment for less than one month and some had been given doses below 6 mg.

...for patients with malignant disease—
NOTABLE WEIGHT GAINS, INCREASED APPETITE AND SENSE OF WELL-BEING

Twenty-six patients, mostly women, weak, emaciated and seriously ill, were administered Winstrol in dosage of 6 mg. daily for periods extending up to 14 months (average 6.7 months). Notable weight gains occurred. Patients showed increased appetite, alertness and confidence, better appearance, increased mobility and tolerance to pain.

...for patients with chronic, non-malignant disorders—
IMPROVEMENT IN WEIGHT AND GENERAL ACTIVITY, INCREASED SENSE OF WELL-BEING

Eight patients with advanced tuberculosis, bronchopulmonary disease, nephritis and ulcerative colitis treated with 6 mg. of Winstrol daily for from 3 to 4 months. Gains in weight varied from 6 to 27 pounds with increased sense of well-being and improvement in general activity.

...for undernourished, underweight children and adolescents—
NOTABLE IMPROVEMENT IN APPETITE AND OUTLOOK, MARKED INCREASE IN WEIGHT AND HEIGHT

One hundred and twenty children, age 1 to 11 years, underweight and in poor health, were given Winstrol for several months. Majority received daily dosage of from 2 to 4 mg. In nearly all, appetite was improved. Over 70 per cent showed significant gains in weight of from 5 to 17 pounds.

DOSAGE: Usual adult dose, one 2 mg. tablet t.i.d. just before or with meals; children from 6 to 12 years, up to 1 tablet t.i.d.; children under 6 years, ½ tablet b.i.d. Available in bottles of 100 tablets.

Complete bibliography and literature available on request. Before prescribing, consult literature for additional dosage information, possible side effects and contraindications.

*animal data

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patients look better...feel stronger—because they are stronger

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India Thanks Indiana

ON OUR DECEMBER ISSUE we published a request for the doctors of Indiana to help India by sending medical equipment for which they no longer had use to Dr. Burleigh Matthew for shipment to Udgir, Bombay State, India, to help equip the Village Medical Service. Articles needed ranged from surgical needles and instrument trays to obstetrical forceps and a portable (non-electric) autoclave. We are happy to report that the response to this plea was met, most generously, by doctors throughout the state.

Following are excerpts of a letter from the Rev. Paul Wagner, a non-medical missionary, who, with his wife, has lived and worked in Udgir for the last nineteen years:

". . . We live in a very out-of-the-way place. For years and years this area has been by-passed even by those advances which in India might be called 'civilized'. During the years since India received her independence, improvements have been made. A telephone was brought to our village three years ago. Since last year a tarred road has come within ten miles of our home. A small generating unit has started to supply a limited amount of electricity to a few homes in our village, between six o'clock at night and midnight — since we live outside the village, we still use kerosene lamps. We use a small generator for special occasions. There is no central water or sewage system.

". . . We seek to instruct people in better methods of agriculture. Seeds are distributed for better vegetables. Our poultry farm of 400 pure breed fowls supply setting eggs and improved stock in order that the village people may have a better balanced diet and increased economic income. Through rural reconstruction projects, we work on self-help projects of providing better drinking water, lead-roads to remote villages, better housing, etc.

"And now comes our larger program of making first-class medical facilities available to village people. Through many interested friends, the physical plant is being constructed. The dispensary, the gift of the Broadway Methodist Church [Indianapolis], is now being used as the first unit to be completed. A small unit of staff quarters will be completed within the next month and the doctor's house is under construction. Since August 1st, 1961, we have had the services of a dedicated Indian Christian doctor—Anandibai A. Chandekar.

"It takes a consecrated worker to work in such a difficult post. We have sent other workers for instruction; it is difficult to secure 'outside' workers. Therefore the selection and training of personnel is a long, slow process.

"For publishing the article in *The Journal* about our new Village Medical Service project, we are indeed thankful. We wish to thank all who have joined in this worthy service to a needy people. We are glad to share this opportunity of service with you. May the Lord's richest blessing be on you during every day of 1962." ◄



Welcome to another year of Lederle Symposia

Recognizing that the exchange of ideas is fundamental to medical progress, Lederle continues its Symposium program with the 11th year of scheduled meetings. Through these Symposia, sponsored by medical organizations with our cooperation, over 55,000 physicians have had the opportunity to hear and question authorities on important advances in clinical medicine and surgery. You have a standing invitation to attend any of these Symposia with your wife for whom a special program is planned.

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Saturday, June 2, 1962
The Davenport Hotel

BIRMINGHAM, ALABAMA
Saturday, June 2, 1962
Dinkler-Tutwiler Hotel

WASHINGTON, D. C.
Saturday, June 9, 1962
Marriott Motor Hotel

LAND O'LAKES, WISCONSIN
Sunday, June 17, 1962
King's Gateway Hotel and Inn

EAU CLAIRE, WISCONSIN
Wednesday, June 20, 1962
The Eau Claire Hotel

ATLANTA, GEORGIA
Wednesday, July 18, 1962
The Hotel Dinkler Plaza

SAN ANTONIO, TEXAS
Sunday, September 9, 1962
The Granada Hotel

CLARKSBURG, WEST VIRGINIA
Sunday, September 9, 1962
The Stonewall-Jackson Hotel

TYLER, TEXAS
Wednesday, September 12, 1962
Carlton Hotel

KANSAS CITY, KANSAS
Friday, September 14, 1962
Battenfeld Auditorium

WOODSTOCK, VERMONT
Wednesday, September 19, 1962
The Woodstock Inn

NIAGARA FALLS, ONTARIO
Saturday, September 29, 1962
Sheraton-Brock Hotel

RAPID CITY, SOUTH DAKOTA
Saturday, October 6, 1962
Holiday Inn

FINDLAY, OHIO
Thursday, October 11, 1962
The Findlay Country Club

HONOLULU, HAWAII
Sunday, October 21, 1962
The Princess Kaiulani Hotel

NEWARK, NEW JERSEY
Sunday, October 28, 1962
Robert Treat Hotel

SANTA BARBARA, CALIFORNIA
Saturday, November 3, 1962
Santa Barbara Biltmore Hotel

INDIANAPOLIS, INDIANA
Wednesday, November 7, 1962
Marott Hotel

Lederle LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.

Doctors Make House Calls In Anti-H. R. 4222 Campaign



FIGURE 1

DR. LOUIS H. BLESSINGER hands the AMA pamphlet to Frances Mathes and Anna Ruth Rhodes, both of Corydon.

CORYDON PHYSICIANS decided they wanted to do something more than just talk to their friends and make an occasional speech against the King-Anderson Bill.

So the seven physicians made a house-to-house canvass of the entire town to express their opposition to the administration's plan for federally-financed medical care for the aged.

The doctors attacked the problem personally by knocking on every door and ringing every doorbell in Corydon, a town of 3,000 population, during the month of April.



FIGURE 2

MRS. TALMADGE WINDELL, a housewife, talks with Dr. W. J. Brockman and takes an AMA pamphlet from his hand.

While one of the physicians remained near a telephone to answer emergency calls, the other six went to their assigned territories and began making their visits.

Among the doctors who participated was Dr. William E. Amy, an 82-year-old general practitioner, whom sponsors of the program said had more enthusiasm for it than anyone.

At each home, the doctor presented the American Medical Association's case in opposition to the medical care plan and concluded his remarks by handing the housewife an AMA pamphlet on the subject.

The plan was supported by the ISMA and the AMA. The local doctors worked out the ideas themselves. While the physicians were visiting homes, medical personnel from other towns in the area stood by at Harrison County Hospital for duty if needed. ◄



FIGURE 3

DR. W. E. AMY honding out AMA pomphlets to Steve Wagner and Leonord F. Howell, of Corydon. They ore standing in front of the first state capitol building at Corydon.



FIGURE 4

DRS. RICHARD A. JORDAN, W. J. Brockmon ond W. E. Amy stuff outgoing mail with the AMA pomphlet.

$17,363,613

4,208 Indiana doctors in 1961 received Blue Shield payments totaling $17,363,613.

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ROSTER OF MEMBERS



Indiana State Medical Association

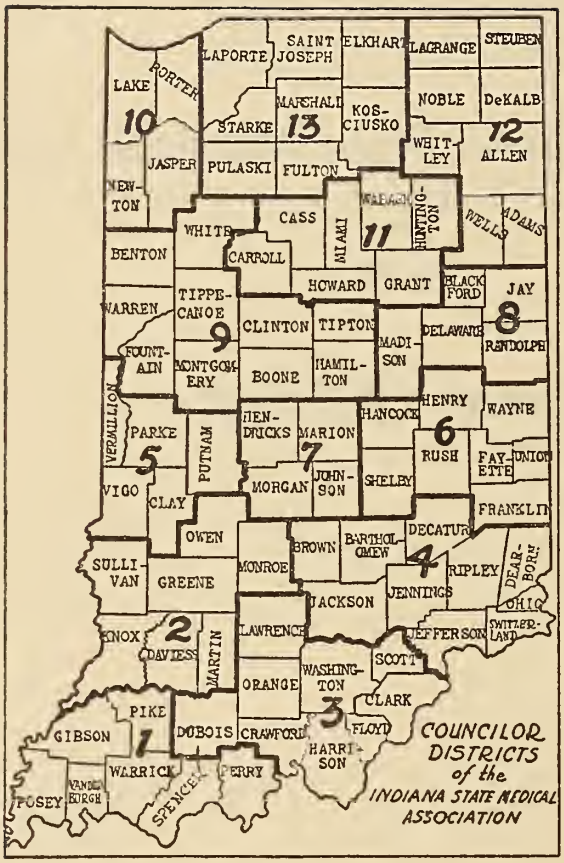
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June 1962

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COUNCILOR DISTRICTS of the INDIANA STATE MEDICAL ASSOCIATION

Membership Roster

INDIANA STATE MEDICAL ASSOCIATION

Following is a list of paid-up members of the Indiana State Medical Association as of May 1, 1962.

The letter (S) following a name indicates that the physician is a senior member of his local society and of the Indiana State Medical Association. The letter (H) following a name indicates that the physician is an honorary member of his local society and the Indiana State Medical Association.

Names of members who have died during the year do not appear in this list.

If any errors are found in this list, please report them to THE JOURNAL, 3935 N. Meridian, Indianapolis 8, Indiana. The cooperation of members is urgently requested.

ALPHABETICAL LIST OF MEMBERS

For street addresses, see roster of members by counties, p. 33/817

Name	City	County
	A	
Aagesen, Walter J.	Anderson	Madison
Abel, Robert	Wakarusa	Elkhart
Abell, Charles F.	Marion	Grant
Able, Walter	Columbus	Bartholomew-Brown
Abramson, Allan L.	Gary	Lake
Acher, Robert P.	Greensburg	Decatur
Acker, Robert B. (S)	South Bend	St. Joseph
Acre, Robert R.	Evansville	Vanderburgh
Adair, Samuel L.	Jeffersonville	Clark
Adair, William K. (S)	Crothersville	Jackson-Jennings
Adams, Daniel S. (S)	Ft. Myers, Fla.	Marion
Adams, Julia L.	Muncie	Delaware-Blackford
Adams, E. Wade	Fort Wayne	Allen
Adams, Max R.	Flora	Carroll
Adams, William B.	Muncie	Delaware-Blackford
Adamski, Michael S.	Logansport	Cass
Addleman, Robert H.	Indianapolis	Marion
Ade, Charles H.	Lafayette	Tippecanoe
Ade, Mary Keller	Lafayette	Tippecanoe
Adkins, Harold C.	Indianapolis	Marion
Adler, David L.	Columbus	Bartholomew-Brown
Adler, Raymond N.	Evansville	Vanderburgh
Adney, Frank B.	Richmond	Wayne-Union
Advincula, Luis	Pendleton	Madison
Adye, Wallace M.	Evansville	Vanderburgh
Agana, Adriano A.	Gary	Lake
Ahlbrand, Roland C.	Fort Wayne	Allen
Aiken, Arthur F.	Fort Wayne	Allen
Aiken, Milo M.	Plainfield	Hendricks
Aiken, Nevin E.	Fort Wayne	Allen
Ake, Loren	Richmond	Wayne-Union
Akre, Philip R.	Indianapolis	Marion
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Alcorn, Merritt O.	Madison	Jefferson-Switzerland
Albrecht, Willard H.	Indianapolis	Lake
Alderfer, Henry H.	Marion	Grant
Aldred, Allen W.	Lawrenceburg	Dearborn-Ohio
Aldrich, Harry D.	Indianapolis	Marion
Aldrich, Howard	Indianapolis	Marion
Alexander, Ezra D.	Indianapolis	Marion
Alexander, John E.	Evansville	Vanderburgh
Alexander, Stephen J.	Crawfordsville	Montgomery
Alfano, Joseph E.	Hammond	Lake
Alfano, Paul A.	Gary	Lake
Alig, Vincent B.	Indianapolis	Marion
Allegretti, Michael L.	Hammond	Lake
Allen, Donald R.	Indianapolis	Marion
Allen, L. Howard	Bedford	Lawrence
Allen, Orris T. (S)	Terre Haute	Vigo
Allen, Robert K.	Indianapolis	Marion
Allen, Robert T.	Richmond	Wayne-Union
Almquist, Carl O.	Gary	Lake
Alt, Edward M. Jr.	Munster	Lake
Alvarez, Paul	Gary	Lake
Alvey, Charles R.	Muncie	Delaware-Blackford
Alvis, Edmond O.	Indianapolis	Marion
Alward, John H.	Kokomo	Howard
Ambrose, Jesse C.	Noblesville	Hamilton
Ambrozaitis, Kazys	Gary	Lake
Amico, Pasquale J.	Gary	Lake
Amini, Sohrab	Huntingburg	Dubois
Amos, Robert L.	New Castle	Henry
Amstutz, Henry C.	Goshen	Elkhart
Amy, William E. (S)	Corydon	Harrison-Crawford
Anderson, Ernest	Fort Wayne	Allen
Anderson, James W.	Indianapolis	Marion
Anderson, John B.	Vincennes	Knox
Anderson, John T.	Indianapolis	Marion
Anderson, Milton H.	Evansville	Vanderburgh
Anderson, Richard M.	Vincennes	Knox
Anderson, Walter C.	Terre Haute	Vigo
Anderson, Wendell C.	Indianapolis	Marion
Andrew, Jerald L.	Fort Wayne	Allen
Andrews, C. Franklin	Geneva	Jay
Andrews, Hugh K.	Franklin	Johnson
Angel, Virgil E.	Whiting	Lake
Angeles, Uldarico A.	Brooklyn, N. Y.	Lake
Ansbacher, Stefan (H)	Marion	Grant
Anshutz, William M.	Indianapolis	Marion
Antes, Earl H.	Evansville	Vanderburgh
Antreasian, Berj	Indianapolis	Marion
Appel, Richard H.	Indianapolis	Marion
Apple, Eddie R.	Salem	Washington
Applegate, Albert E.	Frankfort	Clinton
Arata, Justin E.	Fort Wayne	Allen
Arata, Lucian A.	Shelbyville	Shelby
Arbeiter, Herbert I.	Munster	Lake
Arbogast, John L.	Indianapolis	Marion
Arbogast, Paul B.	Vincennes	Knox
Arbuckle, William E. (S)	Indianapolis	Marion

Name	City	County
Arendell, Robert E.	Evansville	Vanderburgh
Arford, John E.	Warsaw	Kosciusko
Arisman, Ralph K.	South Bend	St. Joseph
Arlook, Theodore D.	Elkhart	Elkhart
Armalavage, Leon J.	Gary	Lake
Armer, Robert M.	Indianapolis	Marion
Armington, Charles L.	Anderson	Madison
Armstead, John W.	Indianapolis	Marion
Armstrong, Thomas D.	Michigan City	La Porte
Arney, Amos	Michigan City	La Porte
Arnold, Aaron L.	Indianapolis	Marion
Arnold, Robert D.	Indianapolis	Marion
Aronson, Sidney S.	Indianapolis	Marion
Arrowsmith, James L.	Munster	Lake
Arthur, Nora M. (S)	Washington	Daviess-Martin
Artis, Myrle E.	Kokomo	Howard
Artz, Richard W.	Angola	Steuben
Ash, Harold H.	W. Lafayette	Tippecanoe
Asher, Ernest O. (S)	New Augusta	Marion
Asher, James W.	New Augusta	Marion
Atchison, Kenneth C. (S)	Rockport	Spencer
Atkins, Clarence C.	Rushville	Rush
Atwood, William H.	Elkhart	Elkhart
Ault, Carl H.	Kokomo	Howard
Ault, Roy J.	Terre Haute	Vigo
Aust, Charles H.	Indianapolis	Marion
Austin, Charles E.	Anderson	Madison
Austin, Eugene W.	Evansville	Vanderburgh
Austin, Maynard A. (S)	Evansville	Madison
Austin, Richard P.	Bedford	Lawrence
Avery, George O.	Indianapolis	Marion
Ayres, Kenneth D.	Markleville	Madison
Ayres, Wendell W.	Marion	Grant

B

Babb, Forrest J.	Stockwell	Tippecanoe
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Backer, George P.	LaPorte	LaPorte
Backer, Henry G.	Ferdinand	Dubois
Backer, Mary B.	LaPorte	La Porte
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Balch, James F	Indianapolis	Marion
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Barton, Reginald R.	Gary	Lake
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Barton, Willoughby M.	Centerville	Wayne-Union
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Bauer, Thomas B.	Indianapolis	Marion
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Baum, John R.	Warsaw	Kosciusko
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Beach, Robert R.	Indianapolis	Marion
Beams, Ralph H.	Fort Wayne	Allen
Bean, Joseph S.	Logansport	Cass
Beardsley, Frank A.	Frankfort	Clinton
Beaven, John B.	Jasper	Dubois
Beaver, Ernest R.	Rensselaer	Jasper-Newton
Beaver, Howard W.	Indianapolis	Marion
Beaver, Norman E.	Berne	Adams
Bebout, Donald E.	Evansville	Vanderburgh

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Bechtold, Samuel E.	South Bend	St. Joseph
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Beck, Robert E.	Evansville	Vanderburgh
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Becker, Philip H.	Crown Point	Lake
Becker, Samuel W.	Whiting	Lake
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Beights, Raymond S.	Fort Wayne	Allen
Beisel, Larry H.	Evansville	Vanderburgh
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Bell, Robert L.	South Bend	St. Joseph
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Belt, James H.	Indianapolis	Marion
Benages, Anthony G.	Terre Haute	Vigo
Benchik, Frank A.	East Chicago	Lake
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Bender, Martin J.	Evansville	Vanderburgh
Bender, Robert L.	Elkhart	Elkhart
Bendler, Carl H.	Gary	Lake
Benedict, Charles D.	LaGrange	LaGrange
Benedict, Paul F.	Indianapolis	Marion
Benham, Lawrence E.	Bedford	Lawrence
Benken, Lawrence D.	Muncie	Delaware-Blackford
Bennett, Abner P.	Evansville	Vanderburgh
Bennett, Ivan F.	Indianapolis	Marion
Bennett, J. B.	Warren	Huntington
Bennett, Jene R.	South Bend	St. Joseph
Benson, James E.	Elkhart	Elkhart
Benson, Wilbur M.	Evansville	Vanderburgh
Benz, Jesse C. (S)	Marengo	Harrison-Crawford
Benz, Owen F.	Wanatah	La Porte
Bergal, Milton B.	Gary	Lake
Bergan, Joseph A.	Michigan City	La Porte
Bergendahl, Emil H.	Fort Wayne	Allen
Berger, Morley	Beech Grove	Marion
Berghoff, James R.	Fort Wayne	Allen
Berghoff, Raymond J.	Fort Wayne	Allen
Bergwall, Warren L.	Muncie	Delaware-Blackford
Berke, Robert D.	South Bend	St. Joseph
Berkshire, Shaffer B.	North Vernon	Marion
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Bernard, Marvin R.	Gary	Lake
Bernoske, Daniel G.	Crown Point	Lake
Berry, John M.	Indianapolis	Marion
Best, Robert C.	Whiting	Lake
Bethea, Dennis A. (S)	Hammond	Lake
Bethea, Robert O.	Farmersburg	Sullivan
Beutler, Theodore V.	Fort Wayne	Allen
Beverland, Malon E. (S)	Indianapolis	Marion
Biasini, Benedict A.	South Bend	St. Joseph
Bibler, Henry E.	Muncie	Delaware-Blackford
Bibler, Lester D.	Indianapolis	Marion
Bickel, David A.	South Bend	St. Joseph
Bickers, Everett E.	New Albany	Floyd
Bidney, Evelyn B.	Bloomington	Owen-Monroe
Bigler, Frederick W.	Goshen	Elkhart
Bill, Robert O.	Indianapolis	Marion
Billings, Elmer R.	Elkhart	Elkhart
Billingsley, John S.	Fort Wayne	Allen
Bills, R. James	Gary	Lake
Bills, Robert N.	Gary	Lake
Birdzell, John P.	Crown Point	Lake
Birmingham, Peter J. (S)	South Bend	St. Joseph
Birum, Patricia J.	Union City	Randolph
Bisgyer, Jay L.	Gary	Lake
Bishop, Harry A.	Frankton	Madison
Bissonnette, Roger P.	Evansville	Vanderburgh
Bivin, James H.	Mooresville	Morgan
Bixler, Donald P.	Anderson	Madison
Bixler, James A.	Berne	Adams
Bixler, Louis C.	South Bend	St. Joseph
Bizer, Mier A.	Jeffersonville	Clark
Black, Boyd K.	Vincennes	Knox
Black, Edgar K.	Circleville, O.	Wabash
Black, Henry R.	Indianapolis	Marion
Black, M. James	Brownsburg	Hendricks
Black, Joe M.	Seymour	Jackson-Jennings
Blackburn, Erwin	South Bend	St. Joseph
Blackford, Florence	Indianapolis	Marion
Blackford, Ralph E.	Indianapolis	Marion
Blackwell, Donald S.	Indianapolis	Marion
Blake, Albert L.	Indianapolis	Marion
Blassaras, Chris	Anderson	Madison
Blatt, A. Ebner	Indianapolis	Marion
Blazey, Arthur G.	Washington	Daviess-Martin
Bledsoe, James G.	New Castle	Henry
Blessinger, Louis H.	Corydon	Harrison-Crawford
Blessinger, Paul J.	Jasper	Dubois
Blichert, Peter A.	Fort Wayne	Allen
Blix, Fred M.	Ladoga	Montgomery
Bloemker, Edward F.	Indianapolis	Marion
Bloom, Asa W.	Marion	Grant
Bloom, George R.	Elkhart	Elkhart
Bloomer, Richard S.	Rockville	Parke-Vermillion
Blosser, Blaine A. (S)	Fremont	Steuben
Blosser, Howard V. (S)	Fort Wayne	Allen
Blossom, Paul W.	Richmond	Wayne-Union
Blum, Leon L.	Terre Haute	Vigo
Boardman, Carl (S)	Gary	Lake
Boaz, William D.	Wabash	Wabash
Bobb, Kenneth E.	Seymour	Jackson-Jennings
Bodnar, Leslie M.	South Bend	St. Joseph
Bogan, William C.	South Bend	St. Joseph
Bogardus, Carl R.	Austin	Scott
Boggs, Eugene F.	Indianapolis	Marion
Bohner, Caryle B.	Hidalgo, Mexico	Marion
Bolin, John T. (S)	Mountain Home, Arkansas	Lake
Bolin, Robert C.	Lafayette	Tippecanoe
Boling, Frederick F.	St. Louis, Mo.	Marion
Boling, Grover C.	Indianapolis	Marion
Boling, Richard	Elkhart	Elkhart
Bolman, Ralph M.	Fort Wayne	Allen
Bomalaski, Martin D.	Indianapolis	Marion
Bombar, Leslie E.	Hammond	Lake
Bonaventura, Angelo P.	East Chicago	Lake
Bond, George S. (S)	Indianapolis	Marion
Bond, Virginia	Indianapolis	Marion
Bond, Walter C.	Clay City	Clay
Bond, William H.	Indianapolis	Marion

Name	City	County
Bonsett, Charles A.	Indianapolis	Marion
Booher, Norman R.	Indianapolis	Marion
Booher, Olga Bonke	Indianapolis	Marion
Booker, Harold E.	Indianapolis	Marion
Boone, Robert D.	Evansville	Vanderburgh
Boonstra, Charles E.	Bluffton	Wells
Booth, Boynton H.	Indianapolis	Marion
Booth, Franklin M.	South Bend	St. Joseph
Booze, James H.	Indianapolis	Marion
Bopp, Henry W., Jr.	Terre Haute	Vigo
Bopp, James	Terre Haute	Vigo
Borak, Walter J.	Gary	Lake
Boren, Paul R.	Poseyville	Posey
Bornstein, Herschel	Gary	Lake
Borland, Raymond M.	Bloomington	Owen-Monroe
Borough, Lester D.	South Bend	St. Joseph
Bosch, Ralph	Seymour	Jackson-Jennings
Bosler, Howard A.	Waterford Mills, mail Goshen	Elkhart
Bossard, John W.	Fort Wayne	Allen
Boswell, Robert W. C.	Evansville	Vanderburgh
Botkin, Charles (S)	Muncie	Delaware-Blackford
Botkin, Clyde G.	Muncie	Delaware-Blackford
Botkin, Thomas	Muncie	Delaware-Blackford
Boughman, Joseph D.	Kokomo	Howard
Bowdoin, George E.	Elkhart	Elkhart
Bowen, Otis R.	Bremen	Marshall
Bowers, Charles R.	Anderson	Madison
Bowers, Copeland C.	Kokomo	Howard
Bowers, Gah T.	Fort Wayne	Allen
Bowers, Garvey B.	Kokomo	Howard
Bowers, George W.	Indianapolis	Marion
Bowers, John A.	Indianapolis	Marion
Bowers, John A.	Kokomo	Howard
Bowers, Jesse W. (S)	Fort Wayne	Allen
Bowman, Charles M.	Albion	Noble
Bowman, Geo. W. (S)	Indianapolis	Marion
Bowser, Philip G.	Goshen	Elkhart
Boyd, Charles S.	East Chicago	Lake
Boyd, H. Clark	Terre Haute	Vigo
Boyd, Stella N.	Evansville	Vanderburgh
Boyer, Floyd A.	Indianapolis	Marion
Boyer, Grace B.	Marion	Grant
Boyle, Carroll L.	Poseyville	Posey
Boys, Frank F.	East Chicago	Lake
Boze, Robert L.	Berne	Adams
Bradley, Charles F.	Smyrna Beach, Fla.	Lake
Bradley, Louis F.	Bluffton	Wells
Bradley, Richard V.	Kokomo	Howard
Bradley, Stephen C. (S)	Terre Haute	Vigo
Brady, John P.	Indianapolis	Marion
Brady, Kingdon	Morocco	Jasper-Newton
Brady, Samuel G.	Gary	Lake
Brady, Thomas A.	Indianapolis	Marion
Brakel, Frank J.	Evansville	Vanderburgh
Brandman, Harry	Gary	Lake
Brandt, William E.	Fort Wayne	Allen
Brauchla, Carl H. (S)	Anderson	Madison
Brauer, Abraham A.	East Chicago	Lake
Braun, Benjamin D.	Chicago, Ill.	Lake
Braunlin, Robert F.	Marion	Grant
Brayton, John R., Jr.	Oakland, Calif.	Marion
Brayton, John R.	Indianapolis	Marion
Brayton, Lee	Indianapolis	Marion
Brazelton, Osborne T. (S)	San Diego, Calif.	Gibson
Brechtl, Harvey J.	South Bend	St. Joseph
Breneman, William L.	San Antonio, Texas	Marion
Brennan, William C.	Whiting	Lake
Brenner, Howard B.	Munster	Lake
Bretz, John M.	Huntingburg	Dubois
Brickley, Harry D.	Indianapolis	Marion
Brickley, Richard A.	Indianapolis	Marion
Bridges, Alvin	Anderson	Madison
Bridges, William L.	Fort Wayne	Allen
Bridwell, Edgar	Bedford	Lawrence
Briggs, Robert W.	Indianapolis	Marion
Brillhart, James R.	Indianapolis	Marion
Brincko, John	Gary	Lake
Bringas, Irineo B.	Gary	Lake
Brink, Calvin C. (S)	Gary	Lake
Bristol, Henry M. S.	Terre Haute	Vigo
Britt, Robert	Evansville	Vanderburgh
Britton, Welbon D.	Montezuma	Parke-Vermillion
Brock, Earl E. (S)	Anderson	Madison
Brock, Joseph T.	New Castle	Henry
Brockman, Wilfred J.	Corydon	Harrison-Crawford
Brockmole, Arnold W.	Evansville	Vanderburgh
Brodie, Donald W.	Indianapolis	Marion
Bromley, Luman W.	Fort Wayne	Allen
Bronson, Paul J.	Terre Haute	Vigo
Brooks, Fred R., Jr.	Indianapolis	Marion
Brooks, G. Tanner	Richmond	Wayne-Union
Broomes, Edward L. C.	East Chicago	Lake
Brose, Paul E.	Lebanon	Marion
Broshears, Kenneth P.	Linton	Greene
Brosius, Robert H. W.	Fort Wayne	Allen
Brown, Archie E.	Indianapolis	Marion
Brown, David B.	Gary	Lake
Brown, David E.	Indianapolis	Marion
Brown, Dewitt W.	Indianapolis	Marion
Brown, Earl R., Jr.	Kokomo	Howard
Brown, Frances T.	Indianapolis	Marion
Brown, Frank M.	Indianapolis	Marion
Brown, Frederic W.	Fort Wayne	Allen
Brown, George E.	Greenwood	Johnson
Brown, George W.	Evansville	Vanderburgh
Brown, Gordon T.	Indianapolis	Marion
Brown, James C.	Valparaiso	Porter
Brown, John S.	Carlisle	Sullivan
Brown, Kenneth H.	New Albany	Floyd
Brown, Leland G.	Muncie	Delaware-Blackford
Brown, Leo R.	Gary	Lake
Brown, Marcel S.	Spencer	Owen-Monroe
Brown, Richard J.	Richmond	Wayne-Union
Brown, Robert M.	Marion	Grant
Brown, Robert R.	Terre Haute	Vigo
Brown, Stewart D.	Albany	Delaware-Blackford
Brown, Thomas C.	Indianapolis	Marion
Brown, Thomas M.	Muncie	Delaware-Blackford
Brown, Wendell E.	Indianapolis	Marion
Browning, James S.	Indianapolis	Marion
Browning, William M.	Indianapolis	Marion
Brownley, Emma J.	Indianapolis	Marion
Brubaker, Harold S.	Huntington	Huntington
Brubeck, Robert E.	Martinsville	Morgan
Bruce, Reginald A.	Indianapolis	Marion
Brucker, Perry A.	Fort Wayne	Allen
Brueckman, F. Robert	Indianapolis	Marion

Name	City	County
Bruegge, Theodore J.	Kokomo	Howard
Bruetsch, Walter L.	Indianapolis	Marion
Bruner, Ralph W. (S)	Jeffersonville	Clark
Bryan, Franklin A.	Fort Wayne	Allen
Bryan, Robert E.	Kendallville	Noble
Bryan, Stanton L.	Evansville	Vanderburgh
Bryant, Edward G.	East Chicago	Lake
Buchanan, Wallace D.	South Bend	St. Joseph
Buche, Franklin P. (S)	Richmond	Wayne-Union
Buckingham, Richard E.	Bloomington	Owen-Monroe
Buckles, David L.	Anderson	Madison
Buchman, Marshall H.	New Albany	Floyd
Buckner, George D.	Fort Wayne	Allen
Buckner, Joy F.	Bluffton	Wells
Buechler, William F.	Elwood	Madison
Buechner, Frederick W.	South Bend	St. Joseph
Buehler, George M.	Jeffersonville	Clark
Buehner, Donald F.	Evansville	Vanderburgh
Buell, Forrest R.	Clay City	Clay
Bugh, Charles W.	Fairbanks, Alaska	Marion
Buhrmester, Harry C.	Lafayette	Tippecanoe
Bullard, Mattie J.	Gary	Lake
Bullers, Robert C.	Franklin	Johnson
Bullington, George E.	Franklin	Johnson
Bunker, Ladoska Z.	North Manchester	Wabash
Burcham, James B.	Gary	Lake
Burdette, Harold F.	Indianapolis	Marion
Burger, Thomas C.	Evansville	Vanderburgh
Burghard, Rolla D.	Indianapolis	Marion
Burk, James M.	Decatur	Adams
Burket, Cecil R.	Bremen	Marshall
Burkhardt, Boyd A.	Tipton	Tipton
Burkle, John C. (S)	Lafayette	Tippecanoe
Burks, Jess E.	Crawfordsville	Montgomery
Burman, Leonard	Los Angeles, Calif.	Marion
Burnett, Arthur B.	New Castle	Henry
Burnett, Paul C.	Logansport	Cass
Burnikel, Ray H.	Evansville	Vanderburgh
Burns, John T.	Lafayette	Tippecanoe
Burns, Paul E.	Montpelier	Delaware-Blackford
Burress, Clyde R.	Evansville	Vanderburgh
Burris, Floyd L.	Michigan City	La Porte
Burwell, Stanley W.	Muncie	Delaware-Blackford
Bush, Charles E.	Kirklin	Clinton
Bush, Edward R.	Anderson	Madison
Bush, Hargis R.	Cannelton	Perry
Bush, Jack A.	Lafayette	Tippecanoe
Buslee, Roger M.	South Bend	St. Joseph
Bussard, Clifford F. (S)	South Bend	St. Joseph
Bussard, Frank W.	South Bend	St. Joseph
Butler, Joe B.	Crothersville	Jackson-Jennings
Butler, John O.	Indianapolis	Marion
Butler, Robert M.	Indianapolis	Marion
Butterfield, Robert M.	Muncie	Delaware-Blackford
Butts, Milton A.	South Bend	St. Joseph
Butz, Ralph O.	Muncie	Delaware-Blackford
Byrd, Ryland P.	Jeffersonville	Clark
Byrn, Howard W. (S)	Boswell	Floyd
Byrne, Louis E.	Bloomington	Owen-Monroe
Byrne, Robert J.	Bicknell	Knox

C

Cacia, John J.	Evansville	Vanderburgh
Cagle, Bob R.	New Palestine	Hancock
Cahn, Hugo M.	Indianapolis	Marion
Cahué, Antonio R.	Gary	Lake
Cain, David R.	New Castle	Henry
CaJacob, Melville E.	Terre Haute	Vigo
Caldwell, Marilyn R.	Indianapolis	Marion
Caldwell, Milton V.	Terre Haute	Vigo
Call, Herbert F.	Indianapolis	Marion
Call, William H.	Ann Arbor, Mich.	Marion
Callaghan, Winship C.	Greensburg	Decatur
Calli, Louis	North Vernon	Jackson-Jennings
Calvert, Raymond R.	Lafayette	Tippecanoe
Calvin, Helen M.	North Liberty	St. Joseph
Calvin, O. Walter	North Liberty	St. Joseph
Cameron, Don F.	Angola	Steuben
Cameron, Mary H.	Angola	Steuben
Campagna, Ettor A.	East Chicago	Lake
Campbell, H. Edwin, Jr.	Indianapolis	Marion
Campbell, John A.	Indianapolis	Marion
Campbell, Patrick B.	Elkhart	Elkhart
Campbell, Robert L.	Indianapolis	Marion
Campbell, Sam W.	Noblesville	Hamilton
Campbell, William T.	Bedford	Lawrence
Canaday, James W. (S)	Indianapolis	Marion
Canganelli, Vincent G.	Lafayette	Tippecanoe
Cannon, Daniel H.	New Albany	Floyd
Cantwell, Edgar R.	Indianapolis	Marion
Caplin, Irvin	Indianapolis	Marion
Caplin, Samuel S.	Indianapolis	Marion
Carberry, George A.	Gary	Lake
Carbone, Joseph A.	Gary	Lake
Carey, J. Albert	Gary	Lake
Carlberg, Dale K.	Jeffersonville	Clark
Carlo, Ernest R.	Fort Wayne	Allen
Carlson, Edward A. (S)	Peru	Miami
Carlson, Milton R.	Portage	Lake
Carlson, Norman R.	Michigan City	La Porte
Carlson, Ralph F.	Evansville	Vanderburgh
Carlyle, Ivan E. (S)	Michigantown	Clinton
Carmody, Raymond F.	Gary	Lake
Carneal, Thomas E. (S)	Winamac	Pulaski
Carney, Joel T. (S)	Jeffersonville	Clark
Carney, John C.	Monticello	White
Carpenter, Bennie F.	Griffith	Lake
Carpenter, James B.	Lafayette	Tippecanoe
Carpenter, Ramesh S.	Garrett	DeKalb
Carpentier, Harry F.	Princeton	Gibson
Carpentier, James R.	La Porte	La Porte
Carr, Joseph H.	Henryville	Clark
Carrel, Francis E.	Frankfort	Clinton
Carroll, Bertha Rose	W. Lafayette	Tippecanoe
Carroll, John C.	Decatur	Adams
Carroll, Mary D.	Crown Point	Lake
Carson, Wayne	Indianapolis	Marion
Carter, Eunice M.	Noblesville	Hamilton
Carter, F. R. Nicholas	South Bend	St. Joseph
Carter, Fred S.	La Porte	La Porte
Carter, James E.	Indianapolis	Marion
Carter, Jean V.	Tipton	Tipton
Carter, John O.	Hobart	Lake
Carter, Oren E.	Indianapolis	Marion
Carter, Robert E., Jr.	Noblesville	Hamilton
Carter, William D.	Walkerton	La Porte
Cartwright, Emor L. (S)	Fort Wayne	Allen
Cartwright, Jack D.	La Porte	La Porte
Carty, Charles B.	Pekin	Washington
Casey, Stanley M.	Huntington	Huntington
Cassady, James V.	South Bend	St. Joseph
Cassady, John R.	South Bend	St. Joseph
Castetter, Gregory K.	Anderson	Madison
Cattell, Lee M.	Kokomo	Howard
Cavins, Alexander W.	Terre Haute	Vigo
Caylor, Charles H.	Bluffton	Wells
Caylor, Harold D.	Bluffton	Wells
Caylor, Truman E.	Bluffton	Wells
Chael, Thomas C.	Munster	Lake
Challman, William B.	Mt. Vernon	Posey

Name	City	County
Chambers, Alan R.	Fort Wayne	Allen
Chambers, Carol R.	Union City	Randolph
Chambers, Leroy B.	Union City	Randolph
Chambers, Pauline D.	Greenwood	Johnson
Chamblee, Roland W.	South Bend	St. Joseph
Chandler, Leon H.	Goshen	Elkhart
Chappel, Alfred T.	Franklin	Johnson
Chase, James A.	Fort Wayne	Allen
Chattin, Herbert O.	Vincennes	Knox
Chattin, Robert E.	Loogootee	Daviess-Martin
Chattin, William R.	Indianapolis	Marion
Chattin, Vance J.	Washington	Daviess-Martin
Chen, Ko K.	Indianapolis	Marion
Chen, Thomas T. Y.	Indianapolis	Marion
Cheng, Sylvia F.	Logansport	Cass
Cheydleur, Eleanor P.	Evansville	Vanderburgh
Chernish, Stanley M.	Indianapolis	Marion
Chevalier, Robert A.	Indianapolis	Marion
Chidlaw, Benj. W. (S)	Hammond	Lake
Childress, Richard H.	Indianapolis	Marion
Childress, Robert C.	Gainesville, Fla.	Marion
Childs, Wallace E.	Madison	Jefferson-Switzerland
Chivington, Paul V.	Indianapolis	Marion
Christie, Marvin	Beech Grove	Marion
Christophel, Verna A.	Mishawaka	St. Joseph
Chroniak, Walter	Indianapolis	Marion
Chu, Johnson C. S.	Logansport	Cass
Chube, David D.	Gary	Lake
Chun, Wallace H.	Muncie	Delaware-Blackford
Clark, Cecil P.	Indianapolis	Marion
Clark, George A.	Indianapolis	Marion
Clark, Ivan A.	Paoli	Orange
Clark, Jack P.	Syracuse	Elkhart
Clark, Joseph H.	Huntington	Huntington
Clark, Lawson J.	Indianapolis	Marion
Clark, Marion E.	Cambridge City	Henry
Clark, Thomas W.	Evansville	Vanderburgh
Clark, William B., Jr.	Jeffersonville	Clark
Clark, William H.	South Bend	St. Joseph
Clark, William R.	Fort Wayne	Allen
Clarke, Elton R.	Kokomo	Howard
Clarkson, Clarence G.	Liberty	Wayne-Union
Classen, Pete R. C.	Elkhart	Elkhart
Clay, Eleanor	Columbus	Bartholomew-Brown
Claybourn, Norman L.	East Chicago	Lake
Cleveland, John B.	Michigan City	La Porte
Clevenger, Joseph H.	Muncie	Delaware-Blackford
Clevinger, William G.	Indianapolis	Marion
Cline, Kenneth L.	Wyatt	St. Joseph
Close, Gerald A.	S. Rhodesia, Africa	Marion
Close, W. Donald	Indianapolis	Marion
Clouse, Paul A.	Evansville	Vanderburgh
Clunie, William A.	Huntington	Huntington
Coade, George E.	Long Beach, Calif.	Marion
Coates, Jacqueline	Indianapolis	Marion
Cobb, Clarence M.	Logansport	Cass
Coble, Frank H.	Richmond	Wayne-Union
Cochran, Harry A., Jr.	Fort Wayne	Allen
Cochran, John F.	Bloomington	Owen-Monroe
Cochran, Robert B.	Muncie	Delaware-Blackford
Cockrum, William M.	Evansville	Vanderburgh
Coddington, Robert C.	Ft. Campbell, Ky.	Marion
Coffel, Melvin H.	Vincennes	Knox
Coggeshall, Warren E.	Indianapolis	Marion
Cohen, Hyman	Gary	Lake
Cohen, Irving	Plainfield	Hendricks
Cohn, Alvin F.	Indianapolis	Marion
Cole, Ira	Lafayette	Tippecanoe
Coleman, Floyd B.	Waterloo	DeKalb
Coleman, Henry G.	Salem	Washington
Coleman, Joseph E.	Evansville	Vanderburgh
Colip, George D.	South Bend	St. Joseph
Collins, Hubert L.	Indianapolis	Marion
Collins, Jack T.	Bluffton	Wells
Collins, Margaret C.	Muncie	Delaware-Blackford
Collins, Robert C.	Indianapolis	Marion
Colosey, Frederick J.	South Bend	St. Joseph
Colvin, Robert C.	Newburgh	Warrick
Combs, Herman T.	Evansville	Vanderburgh
Combs, John H.	Evansville	Vanderburgh
Combs, Pearl B. (S)	Evansville	Vanderburgh
Combs, Stuart R.	Terre Haute	Vigo
Comeau, William J.	Marion	Grant
Comer, Kenneth E.	Mooresville	Morgan
Compton, George L.	Tipton	Tipton
Compton, Walter A.	Elkhart	Elkhart
Congleton, G. C. (S)	Terre Haute	Vigo
Conklin, James O.	Terre Haute	Vigo
Conklin, Raymond L.	Elkhart	Elkhart
Conley, John E.	Fort Wayne	Allen
Conley, Joseph L. (S)	Indianapolis	Marion
Conley, Thomas M.	Kokomo	Howard
Connell, Paul S.	Plymouth	Marshall
Connell, Vactor O.	Bourbon	Marshall
Connelly, Richard D.	Fort Wayne	Allen
Connerley, Marion L.	Terre Haute	Vigo
Connoy, Andrew F.	Westfield	Hamilton
Connoy, Leo F.	Westfield	Hamilton
Conrad, Henry W.	Lawrenceburg	Dearborn-Ohio
Constan, Evan	Westville	La Porte
Conway, Chester C.	Indianapolis	Marion
Conway, Glenn	Indianapolis	Marion
Conway, Thomas J.	Terre Haute	Vigo
Cook, Charles E.	North Manchester	Wabash
Cook, Gordon C.	South Bend	St. Joseph
Cook, Robert G.	Bluffton	Wells
Cooksey, Thomas L. (S)	Crawfordsville	Montgomery
Cooney, Charles J.	Fort Wayne	Allen
Coons, John D.	Lebanon	Boone
Coons, Ritchie	Lebanon	Boone
Cooper, B. Trent	Roanoke	Huntington
Cooper, Harry L. (S)	South Bend	St. Joseph
Cooper, John	Muncie	Delaware-Blackford
Cooper, Leo K.	Gary	Lake
Cooper, Waller W.	Evansville	Vanderburgh
Cope, Stanton E.	Huntington	Huntington
Corcoran, Patrick J. V.	Evansville	Vanderburgh
Cormican, Herbert L.	Elkhart	Elkhart
Cornacchione, Matthew	Indianapolis	Marion
Cornell, Robert A.	Crawfordsville	Montgomery
Corpe, Kenneth F.	Rushville	Rush
Corrao, Gaetano	Gary	Lake
Corrao, Thomas J.	Jeffersonville	Clark
Corsentino, Bart E.	Vincennes	Knox
Cortese, James V.	Indianapolis	Marion
Cortese, Thomas A.	Indianapolis	Marion
Costello, Albert J.	Hammond	Lake
Costin, Robert L.	Indianapolis	Marion
Cotter, Edward R.	Hammond	Lake
Cottrell, Robert F.	Fort Wayne	Allen
Couch, Rex D.	Indianapolis	Marion
Coughenour, J. Robert	Indianapolis	Marion
Countryman, Frank W.	Indianapolis	Marion
Coursey, James O.	Plymouth	Marshall

Name	City	County
Covalt, Wendell E.	Muncie	Delaware-Blackford
Covell, Harry M.	Auburn	DeKalb
Covey, Thomas J.	Valparaiso	Porter
Cox, Leon T.	Richmond	Wayne-Union
Coyner, Alfred B. (S)	Lafayette	Tippecanoe
Craft, Kenneth L. (S)	Indianapolis	Marion
Craig, Alexander F.	New Castle	Henry
Craig, Harry L.	Huntingburg	Dubois
Craig, Reuben	Kokomo	Howard
Craig, Reuben A.	Kokomo	Howard
Craig, Richard M.	Fort Wayne	Allen
Craig, Robert A.	Syracuse	Elkhart
Crain, James W.	Williamsport	Fountain-Warren
Crampton, Chas. C. (S)	Delphi	Carroll
Crandall, Lathan A.	Elkhart	Elkhart
Crawford, James H.	Evansville	Vanderburgh
Crawford, John A.	Indianapolis	Marion
Crawford, Theodore R.	Kokomo	Howard
Creek, Jean A.	Bloomington	Owen-Monroe
Cregger, Irby E.	Indianapolis	Marion
Crevello, Albert J.	Evansville	Vanderburgh
Crimm, Paul D.	Evansville	Vanderburgh
Cripe, Earl P.	Bremen	Marshall
Cripe, Jerome H.	Peoria, Ill.	Marion
Cripe, William	Portland	Jay
Crise, John R.	Portage	Lake
Crist, John R.	Mt. Vernon	Posey
Crockett, Franklin S. (H)	West Lafayette	Tippecanoe
Crockett, Wayne A.	Terre Haute	Vigo
Cron, William J.	Warsaw	Kosciusko
Cronick, Charles H.	Indianapolis	Marion
Cross, David G.	Indianapolis	Marion
Crowder, James H.	Sullivan	Sullivan
Crudden, Charles H.	Evansville	Vanderburgh
Crum, Marion M.	Angola	Steuben
Cuff, Steve C.	Evansville	Vanderburgh
Culbertson, Carl S.	South Bend	St. Joseph
Culbertson, Clyde G.	Indianapolis	Marion
Cullen, Paul K.	Indianapolis	Marion
Cullen, Paul K., Jr.	Rochester, Minn.	Marion
Cullison, John L.	Muncie	Delaware-Blackford
Cullnane, Chris W.	Evansville	Vanderburgh
Culloden, William G.	Indianapolis	Marion
Culp, John E.	Fort Wayne	Allen
Cunningham, Gene C.	Indianapolis	Marion
Cunningham, Robert D.	Marion	Grant
Cure, Charles W.	Indianapolis	Marion
Cure, Elmer T.	Muncie	Delaware-Blackford
Currie, Robert W.	Indianapolis	Marion
Curry, R. Louis	Indianapolis	Marion
Curtner, Myron L. (S)	Vincennes	Knox
Custer, Edward W.	South Bend	St. Joseph
Cuthbert, Marvin P.	Indianapolis	Marion
Cymbala, Bohdan	Evansville	Vanderburgh
Czenkusch, Helen G.	Indianapolis	Marion

D

Daggy, Benjamin T.	Richmond	Wayne-Union
Daggy, James R.	Richmond	Wayne-Union
Dahling, Clemens W.	New Haven	Allen
Dahling, Fred W.	New Haven	Allen
Dainko, Alfred J.	East Chicago	Lake
Dale, Maxwell H.	Connersville	Fayette-Franklin
Dale, Robert T.	Indianapolis	Marion
Daley, Edward H.	Indianapolis	Marion
Dallas, Fred R.	Indianapolis	Marion
Dallas, Mary E.	Indianapolis	Marion
Dalton, William W.	Indianapolis	Marion
Dalton, Wilson L.	Shelbyville	Shelby
Daly, Joseph M.	Indianapolis	Marion
Daniel, John C. (S)	Indianapolis	Marion
Daniel, Robert A.	Gary	Lake
Danieleski, Ladislaus J.	Gary	Lake
Daniels, George R. (S)	Marion	Grant
Dannacher, William D.	Wabash	Wabash
Dare, Lee A.	Jeffersonville	Clark
Darling, Dorothy R.	Gary	Lake
Datzman, Basil J.	La Porte	La Porte
Datzman, Richard C.	Fort Wayne	Allen
Daugherty, Forest D.	Columbus	Bartholomew-Brown
Daugherty, Fred N.	Crawfordsville	Montgomery
Daugherty, William L.	Hutsonville, Ill.	Sullivan
Daves, W. Lawrence	Evansville	Vanderburgh
Davidoff, Manuel A.	Fort Wayne	Allen
Davidson, Dale A.	Indianapolis	Marion
Davidson, Harold H.	Evansville	Vanderburgh
Davidson, N. Cort	Indianapolis	Marion
Davies, Robert R.	New Castle	Henry
Davis, Bennie L.	Indianapolis	Marion
Davis, Carl M.	Valparaiso	Porter
Davis, Claude E.	Angola	Steuben
Davis, Edgar C. (S)	Muncie	Delaware-Blackford
Davis, Edward A.	South Bend	St. Joseph
Davis, Grayson B.	Lafayette	Tippecanoe
Davis, Howard B.	Lafayette	Tippecanoe
Davis, John A.	Flat Rock	Shelby
Davis, John C. (S)	Logansport	Cass
Davis, Joseph B.	Marion	Grant
Davis, Lloyd H. (S)	Madison	Jefferson-Switzerland
Davis, Margaret M.	Indianapolis	Marion
Davis, Marvin R.	Columbus	Bartholomew-Brown
Davis, Max D.	Evansville	Vanderburgh
Davis, Merrill S. (S)	Marion	Grant
Davis, Neal	Gary	Lake
Davis, Parvin M.	New Albany	Floyd
Davis, Perk L.	Whiting	Lake
Davis, Richard M.	Marion	Grant
Davis, Sam J.	Indianapolis	Marion
Davis, Thomas N. III	Hammond	Lake
Davis, William H.	New Market	Montgomery
Day, William D. C.	Seymour	Jackson-Jennings
Deal, Eleanor H.	Speedway City	Marion
Dean, Donald I.	Rushville	Rush
Dearmin, Robert M.	Indianapolis	Marion
DeArmond, Murray	Indianapolis	Marion
De Bois, Elon	Gary	Lake
Deems, Myers B.	Evansville	Vanderburgh
Deever, John W.	Indianapolis	Marion
DeFries, John J.	New Paris	Elkhart
DeGrazia, Eugene J.	Valparaiso	Porter
Deitch, Robert D.	Indianapolis	Marion
DeMotte, C. Bowen	Greenwood	Marion
DeNaut, James F.	Knox	Starke
Denham, Robert H.	South Bend	St. Joseph
Dennison, Alfred D., Jr.	Indianapolis	Marion
Denny, E. Rankin	Terre Haute	Vigo
Denny, Forrest L.	Indianapolis	Marion
Denny, James W.	Indianapolis	Marion
Denny, Melvin H.	Rushville	Rush
Denton, Larkin D.	Greentown	Howard
Denzer, Edward K.	Evansville	Vanderburg
Denzer, William O.	Evansville	Vanderburgh
Deppe, Charles F.	Franklin	Johnson
DeRenne, William L.	Newport	Parke-Vermillion
Derhammer, George L.	Brookston	Tippecanoe
DesJean, Paul A.	Indianapolis	Marion
Dester, Herbert E.	Greencastle	Putnam
DeTar, George B. (S)	Winslow	Pike

Name	City	County
Detrick, Herbert W. (S)	Haddenfield, N. J.	Lake
Dettloff, Frederick R.	Greencastle	Putnam
Deur, Julius J.	Lafayette	Tippecanoe
Deutsch, William	Muncie	Delaware-Blackford
DeVoe, Kenneth	South Bend	St. Joseph
DeWees, Dwight L.	Indianapolis	Marion
DeWester, Gerald M.	Indianapolis	Marion
Dhein, Donald T.	Crown Point	Lake
Dian, August J.	Gary	Lake
Dickerson, W. Martin	Monticello	White
Dickey, William M.	Bay Pines, Fla.	Marion
Dickson, Carolyn L.	Indianapolis	Marion
Dickson, Dale D.	Greensburg	Decatur
Dieckman, Herbert S.	Evansville	Vanderburgh
Diefendorf, Charles F. (S)	Evansville	Vanderburgh
Dielman, Franklin C. (S)	Fulton	Fulton
Dierdorf, Fred W.	Terre Haute	Vigo
Dierolf, Edward J.	Gary	Lake
Dieter, William J.	Westville	La Porte
Dietl, Ernest L.	South Bend	St. Joseph
Dill, Charles W.	Beech Grove	Marion
Dill, Myron K.	Indianapolis	Marion
Dillman, Carl E.	Corydon	Harrison-Crawford
Dilts, Robert L.	Indianapolis	Marion
Dimmett, Robert P.	Metairie, La.	Warrick
Dingle, Paul E.	Richmond	Wayne-Union
Dingley, Albert F.	South Bend	St. Joseph
Dininger, William S.	Winchester	Randolph
Dintaman, Paul G.	Indianapolis	Marion
Dirks, Kenneth R.	A.P.O., New York, N. Y.	Marion
Dittmer, Jack E.	Valparaiso	Porter
Dittmer, Thomas L.	Valparaiso	Porter
Ditton, Irvin W. (S)	Fort Wayne	Allen
Dixon, Rex W.	Anderson	Madison
Dodd, Robert D.	South Bend	St. Joseph
Dodd, Roberts K.	Evansville	Vanderburgh
Dodds, James U.	Hartford City	Delaware-Blackford
Dodds, Wemple	Crawfordsville	Montgomery
Doenges, James L.	Anderson	Madison
Doerrmann, Paul E.	Huntington	Huntington
Doherty, Raymond J.	Crown Point	Lake
Dolezal, Bernard J.	South Bend	St. Joseph
Donahue, Claude M.	Carmel	Hamilton
Donahue, Francis E.	Dublin	Henry
Donahue, George R.	Lafayette	Tippecanoe
Donahue, James M.	Indianapolis	Marion
Donaldson, Frank C.	Anderson	Madison
Donaldson, Miles W.	Van Buren	Grant
Donato, Albert M.	Indianapolis	Marion
Donchess, Joseph C.	Gary	Lake
Doneff, Ronald H.	Indianapolis	Lake
Donnally, George A.	Geneva	Jay
Donnelly, Everett F.	South Bend	St. Joseph
Doran, J. Hal	Indianapolis	Marion
Dormire, Robert D.	Warsaw	Koscuisko
Dorrance, Thomas O.	Bluffton	Wells
Dosado, Elpidio B.	Gary	Lake
Doss, Jerome F.	Indianapolis	Marion
Doty, James R., Jr.	Indianapolis	Marion
Doughty, Samuel R., Jr.	Indianapolis	Marion
Douglas, William T.	Indianapolis	Marion
Dovey, Edward G.	Elkhart	Elkhart
Dowd, Joseph A.	Indianapolis	Marion
Dowell, Emil H.	Rockville	Parke-Vermillion
Downer, Luther H.	Evansville	Vanderburgh
Dragoo, John R.	Wabash	Wabash
Drake, Dale W.	Evansville	Vanderburgh
Drake, James R.	Anderson	Madison
Drake, John C.	Anderson	Madison
Drake, Marion C.	Elwood	Madison
Drennen, Robert V.	Anderson	Madison
Drew, Arthur L., Jr.	Indianapolis	Marion
Dreyer, Ralph W.	Richmond	Wayne-Union
Drummy, William W.	Terre Haute	Vigo
Dryden, Gale E.	Indianapolis	Marion
Dublin, Madeline P.	Francesville	Tippecanoe
DuBois, Charles C. (S)	Warsaw	Kosciusko
DuBois, Ramon B.	Lafayette	Tippecanoe
Dudgeon, Charles A.	Hartford City	Delaware-Blackford
Duemling, Arnold H.	Fort Wayne	Allen
Dugan, Thomas	Columbus	Bartholomew-Brown
Dukes, Betty	Dugger	Sullivan
Dukes, David A.	Tell City	Perry
Dukes, David J.	Corydon	Harrison-Crawford
Dukes, Frederic M. (S)	Dugger	Sullivan
Dukes, Joe E.	Dugger	Sullivan
Dulin, Basil B.	Anderson	Madison
Dunbar, Fred E.	Marion	Grant
Duncan, John S.	Gary	Lake
Duncan, Raymond	Bedford	Lawrence
Duncan, Stuart J.	Indianapolis	Marion
Duncan, William A.	Indianapolis	Marion
Dunham, Henry H.	Wabash	Wabash
Dunlap, D. Logan	South Bend	St. Joseph
Dunn, Ferrell W. (S)	Muncie	Delaware-Blackford
Dunning, Thomas W.	Muncie	Delaware-Blackford
Dunstone, Harry C.	Fort Wayne	Allen
Dupes, Lowell E.	Indianapolis	Marion
Dupler, Lee F. W.	San Antonio, Texas	Marion
Durham, Lowell J.	La Porte	La Porte
Durkee, Melvin S.	Evansville	Vanderburgh
Durkin, John W., Jr.	Evansville	Vanderburgh
Dusard, Joseph C.	Bedford	Lawrence
DuSold, Donald D.	Crown Point	Lake
Dutchess, C. Toney	Galveston	Cass
Dutchman, William R.	Evansville	Vanderburgh
Dyar, Edwin W.	Indianapolis	Marion
Dycus, Walter A.	Evansville	Vanderburgh
Dye, William E.	Oakland City	Gibson
Dyer, George W.	Terre Haute	Vigo
Dyer, Wallace K.	Evansville	Vanderburgh
Dyke, Richard W.	Indianapolis	Marion
Dyken, Mark L.	Indianapolis	Marion
Dykhuizen, Theodore A.	Frankfort	Clinton
Dzenitis, Andriers J.	Indianapolis	Marion

E

Eades, R. Charles	South Bend	St. Joseph
Eades, Ralph C.	Valparaiso	Porter
Earl, Max M.	Kokomo	Howard
Earp, Evanson B.	Indianapolis	Marion
Easter, James N.	New Castle	Henry
Eastman, Joseph R., Jr.	Indianapolis	Marion
Eaton, Edwin R.	Indianapolis	Marion
Eaton, Lyman D.	Indianapolis	Marion
Eaton, Marion J.	Lafayette	Tippecanoe
Ebbinghouse, Tom	Richmond	Wayne-Union
Ebert, J. Wayne	Indianapolis	Marion
Eberwein, John H. (S)	Indianapolis	Marion
Ebin, Judah L.	South Bend	St. Joseph
Eby, Ida L. (S)	Warren	Huntington
Echeverria, Rodolfo E.	Elkhart	Elkhart
Echsner, Herman J.	Columbus	Bartholomew-Brown
Eckberg, Theodore J.	Indianapolis	Marion
Eckerle, John E.	Jasper	Dubois
Eckert, Russell A.	Logansport	Cass

Name	City	County
Edmonds, Kendrick	Bedford	Lawrence
Edwards, Bernard E.	South Bend	St. Joseph
Edwards, Edward T., Jr.	Vincennes	Knox
Edwards, Henry G.	Terre Haute	Vigo
Edwards, William F.	New Albany	Floyd
Egan, Sherman L.	South Bend	St. Joseph
Egbert, Herbert L.	Indianapolis	Marion
Eggers, Ernest L. (S)	Hammond	Lake
Eggers, Henry W.	Hammond	Lake
Eggers, Richard	Crawfordsville	Montgomery
Egnatz, Charles D.	Munster	Lake
Egnatz, Nicholas	Hammond	Lake
Ehrich, William S. (S)	Manning, S. Carolina	Vanderburgh
Eicher, Palmer O.	Indianapolis	Marion
Eikenberry, Hugh W.	Indianapolis	Marion
Eiler, Paul A.	North Manchester	Wabash
Eisaman, Jack L.	Bluffton	Wells
Eisenberg, David A.	Martinsville	Morgan
Eisterhold, John A.	Evansville	Vanderburgh
Eldridge, Gail E.	Indianapolis	Marion
Elkins, James P.	Indianapolis	Marion
Elledge, Ray	Hammond	Lake
Elleman, John H.	Kokomo	Howard
Ellett, John, Jr.	Coatesville	Putnam
Elliott, John C. (S)	Guilford	Dearborn-Ohio
Elliott, Paul W.	Lafayette	Tippecanoe
Elliott, Ralph A.	El Paso, Texas	Lake
Elliott, Thomas A.	Elkhart	Elkhart
Ellis, Davis W.	Rushville	Rush
Ellis, Forrest D.	North Vernon	Jackson-Jennings
Ellis, George M.	Connersville	Fayette-Franklin
Ellis, Lyman H.	Lizton	Hendricks
Ellis, Seth W.	Anderson	Madison
Ellis, William N.	Indianapolis	Marion
Ellison, Alfred	La Jolla, Calif.	St. Joseph
Elshout, Clem H.	La Porte	La Porte
Elsten, Aubrey W.	Anderson	Madison
Elston, Lynn W.	Fort Wayne	Allen
Elston, Ralph W.	Fort Wayne	Allen
Elward, Carl J.	Wabash	Wabash
Emenhiser, Donald C.	New Haven	Allen
Emenhiser, John L.	Fort Wayne	Allen
Emery, Charles B.	Bedford	Lawrence
Emery, Charles B., Jr.	Bloomington	Owen-Monroe
Emhardt, John T.	Indianapolis	Marion
Emhardt, John W. A. (S)	Indianapolis	Marion
Emme, Richard W.	Harlan	Allen
Endicott, Wayne H.	Greenfield	Hancock
Engel, Edward L.	Evansville	Vanderburgh
Engel, Howard R.	South Bend	St. Joseph
Engeler, James E.	Lafayette	Tippecanoe
Engle, Russell B.	Winchester	Randolph
Engleman, Harry K. (S)	Georgetown	Floyd
English, Hubert M.	Gary	Lake
English, John P.	South Bend	St. Joseph
Ensminger, Leonard A. (S)	Indianapolis	Marion
Entner, Charles L.	Dunkirk	Jay
Episcopo, Arsenius R.	Salem	Washington
Erdel, Milton W.	Frankfort	Clinton
Erehart, Mark G. (S)	Huntington	Huntington
Ericksen, Lester G.	South Bend	St. Joseph
Erickson, Gustaf W.	South Bend	St. Joseph
Ericson, Harold L.	Windfall	Tipton
Ericson, Homer S.	Kokomo	Howard
Erwin, W. Robert	La Porte	La Porte
Eshelman, Henry R.	Monterey	Pulaski
Eskew, Kenneth W.	Sullivan	Sullivan
Espino, Jose C.	Munster	Lake
Espy, Theodore R.	Gary	Lake
Estes, Ambrose C.	Bloomington	Owen-Monroe
Eugenides, Tatiana	Hammond	Lake
Evans, Frederick H.	Indianapolis	Marion
Evans, Frederick J.	Clinton	Parke-Vermillion
Evans, Paul V.	Indianapolis	Marion
Everly, Ralph V.	Indianapolis	Marion
Eviston, John B.	Huntington	Huntington
Ewer, Robert W.	Evansville	Vanderburgh
Ewing, Nathaniel D.	Vincennes	Knox

F

Fadell, Matthew J.	Gary	Lake
Fadul, Armand	Gary	Lake
Fagaly, William J.	Lawrenceburg	Dearborn-Ohio
Failey, Robert B.	Indianapolis	Marion
Faith, Ira L.	Evansville	Vanderburgh
Fargher, Francis M.	Michigan City	La Porte
Fargher, Robert A.	La Porte	La Porte
Farid, Rahim S.	Brazil	Clay
Farner, James E.	Mishawaka	St. Joseph
Farnsworth, Samuel A.	La Porte	La Porte
Farquhar, John S., Jr.	Fort Wayne	Allen
Farr, James C.	Bloomington	Owen-Monroe
Farrell, John J., Jr.	Greenfield	Hancock
Farrell, Joseph T.	Indianapolis	Marion
Farris, John J.	Washington	Daviess-Martin
Faul, Henry J.	Evansville	Vanderburgh
Faulkner, Donald J.	Hobart	Lake
Fausset, C. Basil	Indianapolis	Marion
Faust, Howard M. Jr.	Anderson	Madison
Faw, Melvin L.	Evansville	Vanderburgh
Fedor, Thomas	East Chicago	Lake
Feferman, Martin E.	South Bend	St. Joseph
Feinberg, Irwin I.	Whiting	Lake
Feinn, Harry S.	La Porte	La Porte
Feldman, Max	South Bend	St. Joseph
Feldner, Ronald P.	Calumet City, Ill.	Lake
Fell, Robert M.	Rosedale	Parke-Vermillion
Fenneman, Robert J.	Evansville	Vanderburgh
Ferguson, Arthur N.	Fort Wayne	Allen
Ferguson, Donald H.	Anderson	Madison
Ferguson, William B.	Lafayette	Tippecanoe
Ferrara, Donald W.	Peru	Miami
Ferrara, Joseph F.	Franklin	Johnson
Ferrara, Samuel J.	Peru	Miami
Ferrell, Mars B.	Fortville	Madison
Ferry, Francis A.	Indianapolis	Marion
Ferry, John L.	Whiting	Lake
Ferry, Paul W.	Kokomo	Howard
Fessler, Gordon S.	Rising Sun	Dearborn-Ohio
Fichman, Abraham M.	Fort Wayne	Allen
Fickas, Dallas	Evansville	Vanderburgh
Fiederlein, Frederick J.	Indianapolis	Marion
Fields, Donald C.	Lafayette	Tippecanoe
Fields, Donald L.	Kokomo	Howard
Filipek, Walter J.	South Bend	St. Joseph
Finfrock, James D.	Elkhart	Elkhart
Finneran, Joseph C.	Indianapolis	Marion
Fipp, August L.	Rome City	Noble
Firestein, Ben Z.	South Bend	St. Joseph
Firestein, Ray	South Bend	St. Joseph
Fisch, Charles	Indianapolis	Marion
Fischer, A. Alan	Indianapolis	Marion
Fischer, Burnell	Hammond	Lake
Fischer, Carlton N.	La Porte	La Porte
Fischer, Warren E.	Anderson	Madison
Fish, Clyde M. (S)	Edwardsburg, Mich.	St. Joseph
Fish, Edson C.	South Bend	St. Joseph
Fisher, Frank C.	Buffalo, N. Y.	Marion
Fisher, Gerald E.	Ippy French Equatorial Africa	Marion

Name	City	County
Fisher, Henry	Marion	Grant
Fisher, John E.	Attica	Fountain-Warren
Fisher, John E.	Newcastle	Henry
Fisher, Lawrence F. (S)	South Bend	St. Joseph
Fisher, Walter S.	Columbus	Bartholomew-Brown
Fisher, William C.	Evansville	Vanderburgh
Fitzgerald, Brice E.	Logansport	Cass
Fitzgerald, William J.	Indianapolis	Marion
Fitzpatrick, H. W. (S)	Elwood	Madison
Fitzpatrick, James S.	Portland	Jay
Fitzpatrick, William J.	Hammond	Lake
Flack, Russell A.	Lafayette	Tippecanoe
Flaherty, Robert A.	Fort Wayne	Allen
Flanagan, Estle P. (S)	Walton	Cass
Flanagan, Paul M.	Indianapolis	Marion
Flanders, Robert	Indianapolis	Marion
Flanigan, Meredith B.	Indianapolis	Marion
Flannigan, Harley F.	LaGrange	LaGrange
Fleischer, Jacob C.	East Chicago	Lake
Fleischl, Herbert	Indianapolis	Marion
Fleming, Claude F. (S)	Elkhart	Elkhart
Fletcher, Charles F. (S)	Sunman	Dearborn-Ohio
Flick, John J.	Indianapolis	Marion
Flora, Fred W.	Frankfort	Clinton
Flora, Joseph O.	Indianapolis	Marion
Fogel, Ernest	Logansport	Cass
Folck, John K.	Princeton	Gibson
Foley, Hansel O.	South Bend	St. Joseph
Folkening, Norval C.	Indianapolis	Marion
Foltz, Lloyd E.	Brownsburg	Hendricks
Fong, Theodore C. C.	Madison	Jefferson-Switzerland
Forbes, Robert S.	Indianapolis	Marion
Forbes, Violet Crabbe	Wolcott	White
Foreman, Thomas M.	Tucson, Ariz.	Marion
Foreman, Walter A.	Brookville	Fayette-Franklin
Forrest, O. Norman, Jr.	South Bend	St. Joseph
Forry, Frank (S)	Indianapolis	Marion
Forsee, Norman E.	Jeffersonville	Clark
Fortuna, Frank W.	Indianapolis	Marion
Fosbrink, Ephriam L.	Syracuse	Elkhart
Fosgate, Harold	Russiaville	Marion
Foster, Lee N.	Indianapolis	Marion
Foster, Ray D.	Indianapolis	Marion
Foster, Ray T.	Newcastle	Henry
Foster, Robert H. K.	Franklin	Johnson
Fountaine, Thomas J.	Bedford	Lawrence
Fouts, Paul J.	Indianapolis	Marion
Fowler, Richard R.	Bloomington	Owen-Monroe
Fox, C. Philip	Washington	Daviess-Martin
Fox, Jack	Munster	Lake
Foy, Hayward W.	Fort Wayne	Allen
Frable, Frank L. Jr.	Lawrenceburg	Dearborn-Ohio
Frahm, Charles	East Chicago	Lake
Fralich, Joseph C.	Milwaukee, Wis.	Marion
France, Lloyd C.	Plymouth	Marshall
Frank, Herbert	South Bend	St. Joseph
Frank, John R. (S)	Valparaiso	Porter
Frank, Lyall, Jr.	South Bend	St. Joseph
Frank, Lyall L.	South Bend	St. Joseph
Franke, Gordon R.	Fort Wayne	Allen
Frankhouser, Charles M. A.	Fort Wayne	Allen
Franklin, William L.	Indianapolis	Marion
Frankowski, Clementine	Whiting	Lake
Frantz, Mount E.	Bryan A.F.B., Texas	Hendricks
Frasch, Mahlon G.	Lafayette	Tippecanoe
Frash, De Von W.	South Bend	St. Joseph
Frazier, John L.	Kokomo	Howard
Freeborn, Warren S., Jr.	Oaklandon	Hancock
Freeby, C. William	Decatur	Adams
Freed, Carl A.	Indianapolis	Marion
Freed, John E., Jr.	Terre Haute	Vigo
Freed, John E. (S)	Terre Haute	Vigo
Freeman, Leslie W.	Indianapolis	Marion
Freeman, Max E.	Indianapolis	Marion
French, Richard N.	Lackland A.F.B., Texas	Marion
Fretz, Richard C.	Kokomo	Howard
Frey, Harley B.	Lafayette	Tippecanoe
Frey, William B.	South Bend	St. Joseph
Friedman, Isadore E.	Hammond	Lake
Friedman, Morris S.	South Bend	St. Joseph
Frith, Louis G.	South Bend	St. Joseph
Fromhold, Willis A.	Indianapolis	Marion
Frost, Robert J.	Michigan City	La Porte
Fry, Robert D.	Indianapolis	Marion
Fujawa, Matthew J.	Lakewood, Ohio	St. Joseph
Fullam, Richard G.	Fort Wayne	Allen
Fullerton, Robert L.	Monticello	White
Fulton, William H.	Indianapolis	Marion
Fultz, Roy L.	Salem	Washington
Funk, John W.	Muncie	Delaware-Blackford
Funkhouser, Elmer (S)	Indianapolis	Marion
Furr, Jack D.	Kingman	Fountain-Warren
Fuson, Wenfred J.	Greencastle	Putnam
Futterknecht, James O.	Elkhart	Elkhart

G

Gabe, William E.	Orinda, Calif.	Marion
Gabovitch, Edward R.	Indianapolis	Marion
Gabrielsen, Ted H.	Indianapolis	Marion
Gaddy, Euclid T.	Indianapolis	Marion
Gaddy, Nelson D.	Indianapolis	Marion
Gaffney, Raymond	South Bend	St. Joseph
Gailey, Ivan	Clinton	Spencer
Galante, Vincent J.	Gary	Lake
Galbreath, Jesse P. (S)	Burnettsville	White
Galliher, Marjorie J.	Muncie	Delaware-Blackford
Gallinatti, John J.	Gary	Lake
Gambill, J. Randolph	Madison	Jefferson-Switzerland
Gambill, William D.	Indianapolis	Marion
Gammieri, Robert L.	Indianapolis	Marion
Gammell, Lindley L.	Columbus	Bartholomew-Brown
Ganser, Ralph V.	Elkhart	Elkhart
Ganser, Richard A.	Mishawaka	St. Joseph
Gante, Henry W. (S)	Anderson	Madison
Ganz, Max	Marion	Grant
Garber, J. Neill	Indianapolis	Marion
Garceau, George J.	Indianapolis	Marion
Gard, Daniel A.	Indianapolis	Marion
Gardiner, H. Glenn	East Chicago	Lake
Gardiner, Sprague H.	Indianapolis	Marion
Gardner, Austin L.	Indianapolis	Marion
Gardner, Buckman	Indianapolis	Marion
Gardner, Melvin D.	Michigan City	La Porte
Gardner, Russell A.	Michigan City	La Porte
Garfield, Martin D.	Indianapolis	Marion
Garland, Edgar A.	Evansville	Vanderburgh
Garling, Luvern C.	Muncie	Delaware-Blackford
Garner, W. Stanley	Indianapolis	Marion
Garner, William H., Sr.	New Albany	Floyd
Garner, William H., Jr.	New Albany	Floyd
Garrett, John D. (S)	Indianapolis	Marion
Garrett, Robert A.	Indianapolis	Marion
Garrison, James L.	Cumberland	Hancock

Name	City	County
Garrison, Leon J.	Gas City	Grant
Garst, Garland R.	Evansville	Vanderburgh
Garton, Harry W.	Fort Wayne	Allen
Garvin, Donald B.	Brazil	Clay
Gastineau, David C.	Fort Wayne	Allen
Gates, George E.	South Bend	St. Joseph
Gattman, George B.	Elkhart	Elkhart
Gatzimos, Christos D.	Logansport	Cass
Gaul, L. Edward	Evansville	Vanderburgh
Gaunt, Everett W.	Alexandria	Madison
Geckler, Charles E.	Muncie	Delaware-Blackford
Geick, Raymond G.	Fort Branch	Gibson
Geider, Roy A.	Indianapolis	Marion
Geiger, Dillon D.	Bloomington	Owen-Monroe
Geisinger, Lewis N. (S)	Auburn	De Kalb
Geisler, Hans E.	Indianapolis	Marion
Geller, Samuel	Evansville	Vanderburgh
Genovese, Pasquale	Indianapolis	Marion
Genna, Mary E. Miller	Indianapolis	Marion
Gentile, John P.	New Albany	Floyd
Gentile, Jonathan P.	Fort Wayne	Allen
George, Charles L.	Indianapolis	Marion
Gerding, William J.	Fort Wayne	Allen
Gerig, Eldon L.	Indianapolis	Marion
Geronimo, Manuel M.	East Chicago	Lake
Geronimo, Rita R. V.	East Chicago	Lake
Gerrish, Donald A.	Terre Haute	Vigo
Gerrish, Wakefield D. (S)	Clinton	Parke-Vermillion
Gery, Richard E.	Lafayette	Tippecanoe
Getty, William H.	Evansville	Vanderburgh
Gevirtz, Milton B.	Hammond	Lake
Geyer, Joseph H.	New Albany	Floyd
Gibbs, Charles (S)	Greenfield	Hancock
Gibbs, Joseph W.	Martinsville	Hendricks
Gibson, Alois E.	Indianapolis	Marion
Gibson, Greta Maxine	Indianapolis	Marion
Gibson, Robert K.	Muncie	Delaware-Blackford
Gick, Herman H. (S)	Indianapolis	Marion
Gifford, Fred E.	Indianapolis	Marion
Gilbert, Robert G.	Tell City	Perry
Gill, Dee D.	Greenfield	Hancock
Gill, Donald R.	Huntington	Huntington
Gill, John R.	Indianapolis	Lake
Gilles, Pierre	Gary	Lake
Gillespie, Charles F.	Indianapolis	Marion
Gillespie, Garland R.	Brownstown	Jackson-Jennings
Gillespie, Jacob E.	Indianapolis	Marion
Gillim, Parvin D.	Indianapolis	Marion
Gillotte, Joseph P.	Terre Haute	Vigo
Gillum, Eugene M.	Portland	Jay
Gilman, Marcus M.	South Bend	St. Joseph
Gilmore, Russell A. (S)	Michigan City	La Porte
Gingerick, Charles M.	Liberty Center	Wells
Ginsberg, Stewart T.	Indianapolis	Marion
Giorgio, Douglas J.	Evansville	Vanderburgh
Girod, Arthur H.	Decatur	Adams
Girod, Donald A.	Dunkirk	Jay
Gish, Howard M.	Brookston	Tippecanoe
Gitlin, Max M.	Bluffton	Wells
Gitlin, William A.	Bluffton	Wells
Given, Everett H.	Michigan City	La Porte
Glackman, John C., Jr.	Rockport	Spencer
Gladstone, Naf H.	Fort Wayne	Allen
Glassley, Stephen H.	Fort Wayne	Allen
Glendening, John L. (S)	Indianapolis	Marion
Glendening, Richard L.	Logansport	Cass
Glenn, Fred C. (S)	Tell City	Perry
Glock, Homer E. (S)	Fort Wayne	Allen
Glock, Maurice E.	Fort Wayne	Allen
Glock, Wayne R.	Fort Wayne	Allen
Glover, John L.	Edgewood, Md.	Marion
Glover, William J.	Gary	Lake
Gobbel, Novy E. (S)	English	Harrison-Crawford
Godwin, Donald W.	Indianapolis	Marion
Goebel, Carl W.	Fort Wayne	Allen
Godersky, George E.	South Bend	St. Joseph
Goethals, Charles J.	Mishawaka	St. Joseph
Gold, Marvin E.	Valparaiso	Porter
Goldberg, Harold B.	Gary	Lake
Goldenberg, Norman S.	Indianapolis	Marion
Golding, Robert F.	Gary	Lake
Goldman, Samuel	Indianapolis	Marion
Goldsmith, David A.	Marion	Grant
Goldstone, Adolph	Gary	Lake
Goldstone, Arthur	Gary	Lake
Goldstone, Joseph	Gary	Lake
Goldstone, Robert J.	Gary	Lake
Goldstone, Sidney R.	Gary	Lake
Golper, Marvin N.	Kokomo	Howard
Good, Richard P.	Kokomo	Howard
Gooding, Richard A.	Indianapolis	Marion
Goodman, Eli	Charlestown	Clark
Goodman, Hubert T.	Terre Haute	Vigo
Goodrum, William R.	Cayuga	Parke-Vermillion
Gootee, Francis H.	Jasper	Dubois
Gootee, Thomas H.	Jasper	Dubois
Gordon, Joseph L.	Wheeler	Porter
Gormley, Joseph J.	Indianapolis	Marion
Gosman, James H.	Indianapolis	Marion
Gossard, Meredith B.	Tipton	Tipton
Gossom, Donn R.	Terre Haute	Vigo
Gould, John C.	Fort Wayne	Allen
Gourieux, E. De Verre	Evansville	Vanderburgh
Govorchin, Alexander	East Chicago	Lake
Graber, Virgil R.	Elkhart	Elkhart
Graessle, Harold P.	Seymour	Jackson-Jennings
Graf, Jerome A.	Bloomfield	Greene
Graf, John P.	South Bend	St. Joseph
Graham, Edward W.	Indianapolis	Marion
Graham, George M.	Fort Wayne	Allen
Graham, James C.	Fort Wayne	Allen
Graham, John D.	Indianapolis	Marion
Graham, William E.	Indianapolis	Marion
Grant, Albert J.	Fort Wayne	Allen
Grant, Benjamin F.	Gary	Lake
Grant, M. Arthur	Fairmount	Grant
Grant, Phyllis A.	New Castle	Henry
Graves, Noel S.	Vevay	Jefferson-Switzerland
Graves, Orville M.	Princeton	Gibson
Gray, Clyde C. (S)	Cloverdale	Putnam
Gray, Daniel E.	Crown Point	Lake
Gray, Kenneth L.	Indianapolis	Marion
Gray, Leon	Martinsville	Morgan
Gray, Mary Case	Elkhart	Elkhart
Grayson, Ted L.	Indianapolis	Marion
Grayston, Wallace S. (S)	Huntington	Huntington
Green, Frank H.	Rushville	Rush
Green, G. Richard	South Bend	St. Joseph
Green, George F.	South Bend	St. Joseph
Green, Leonard J.	Valparaiso	Porter
Green, Morris	Indianapolis	Marion
Green, Norval E.	South Bend	St. Joseph
Green, Robert F.	Fort Wayne	Allen
Greene, Frederick G. (S)	Bloomingdale	Parke-Vermillion
Greene, Morgan E.	Indianapolis	Marion
Greene, Robert W.	Rensselaer	Jasper-Newton
Greene, William R.	Henryville	Clark
Greenlee, Robert L.	Fort Wayne	Allen
Gregg, Albert F.	Connersville	Fayette-Franklin
Gregg, Edwin E.	Thorntown	Boone

Name	City	County
Gregoline, Amadeo F.	Gary	Lake
Gregoline, Eugene	Gary	Lake
Gregory, Robert L.	Indianapolis	Marion
Greiber, Marvin F.	Muncie	Delaware-Blackford
Greisen, Jack G.	Whiting	Lake
Greist, John H.	Indianapolis	Marion
Griep, Arthur H.	Evansville	Vanderburgh
Griest, Walter D.	Fort Wayne	Allen
Griffin, Charles G.	Valparaiso	Porter
Griffin, Joseph P.	Chesterton	Porter
Griffin, Leslie W.	Indianapolis	Marion
Griffith, Harold R.	Fort Wayne	Allen
Griffith, James W.	Sheridan	Hamilton
Griffith, Richard S.	Indianapolis	Marion
Griffith, Ross E.	Indianapolis	Marion
Grigsby, Hardin B.	Lebanon	Boone
Grillo, Donald	South Bend	St. Joseph
Grimes, Hubert N.	Indianapolis	Marion
Grimm, William C. H.	Evansville	Vanderburgh
Grindrod, John M.	Terre Haute	Vigo
Gripe, Richard P.	Lafayette	Tippecanoe
Grisell, Ted L.	Indianapolis	Marion
Grosso, William G.	East Chicago	Lake
Grorud, Alton C.	South Bend	St. Joseph
Grothouse, Carl B.	Kokomo	Howard
Grove, James H.	South Bend	St. Joseph
Grove, Robert H.	Rossville	Clinton
Gruber, Charles M.	Indianapolis	Marion
Guckien, Joseph L.	Evansville	Vanderburgh
Guild, John K.	Plymouth	Marshall
Gustafson, Milton	Muncie	Delaware-Blackford
Gustaitis, John W.	Whiting	Lake
Guthrie, James R.	Richmond	Wayne-Union
Guthrie, James U.	Peru	Miami
Guthrie, William H.	Butlerville	Jackson-Jennings
Gutierrez, Peter E.	Crown Point	Lake
Gutstein, Richard R. (S)	Kendallville	Noble
Guttman, John B.	Wakarusa	Elkhart
Gwin, Merle D. (S)	Miami Beach, Fla.	Jasper-Newton

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Haas, Charles F.	Lafayette	Tippecanoe
Habegger, Elmer D.	Indianapolis	Marion
Hackett, Walter G.	Fort Wayne	Allen
Hade, Frederick L. (S)	Bridgeport	Marion
Hadey, James H.	Gary	Lake
Hadley, David	Indianapolis	Marion
Hadley, Harvey (S)	Richmond	Wayne-Union
Haffner, Herman G.	Fort Wayne	Allen
Hagan, Marion L.	Indianapolis	Marion
Haggard, David B.	Plainfield	Hendricks
Haggard, Edmund B.	Indianapolis	Marion
Hagman, Norman A.	Indianapolis	Marion
Haley, Alvin J.	Fort Wayne	Allen
Haley, Paul E.	South Bend	St. Joseph
Halfast, Richard W.	Kokomo	Howard
Hall, Bernard R.	Logansport	Cass
Hall, Donald L.	Petersburg	Pike
Hall, Frank M.	Indianapolis	Marion
Hall, Jack H.	Indianapolis	Marion
Hall, James M.	South Bend	St. Joseph
Hall, Robert S.	Muncie	Delaware-Blackford
Hall, Thomas C.	Chesterton	Porter
Hall, William R.	Fort Wayne	Allen
Halleck, Harold J.	Winamac	Pulaski
Haller, Richard C.	Fort Wayne	Allen
Haller, Robert L.	Kempton	Tipton
Haller, Thomas C.	Crawfordsville	Montgomery
Hamer, Homer G. (S)	Indianapolis	Marion
Hamilton, Antha A.	Vevay	Jefferson-Switzerland
Hamilton, Charles O.	South Bend	St. Joseph
Hamilton, Emory D.	Fort Wayne	Allen
Hamilton, George M.	Fort Wayne	Allen
Hamilton, Howard B.	Indianapolis	Marion
Hamilton, James R.	Mitchell	Lawrence
Hamilton, M. Luther (S)	Newberry	Greene
Hamilton, Orville G. (S)	Bluffton	Wells
Hamilton, Thomas	Columbia City	Whitley
Hammel, Howard T.	Bedford	Lawrence
Hammer, Jay W.	Middletown	Madison
Hammersley, George K.	Frankfort	Clinton
Hammond, James B.	Boston, Mass.	Marion
Hammond, Keith	Waveland, Miss.	Delaware-Blackford
Hammond, R. Case	Evansville	Vanderburgh
Hampshire, Donald R.	Indianapolis	Marion
Hampton, James N.	Argos	Marshall
Hancock, John G.	Indianapolis	Marion
Haney, William K.	Madison	Jefferson-Switzerland
Hanley, Harriet F.	South Bend	St. Joseph
Hann, Eldon C.	Indianapolis	Marion
Hanna, Thomas A.	Indianapolis	Marion
Hannah, Jack W.	Elkhart	Elkhart
Hanneken, Vincent J.	Wabash	Wabash
Hannemann, Robert E.	Lafayette	Tippecanoe
Hansell, Robert M.	Indianapolis	Marion
Hanson, Martin F.	Elwood	Madison
Harcourt, Allan K.	Indianapolis	Marion
Harcourt, Robert S.	Indianapolis	Marion
Harden, Murray E.	Lafayette	Tippecanoe
Hardin, Wayne E.	Ossian	Wells
Harding, M. Richard	Indianapolis	Marion
Harding, Myron S.	Indianapolis	Marion
Hardtke, Eldred F.	Bloomington	Owen-Monroe
Hardy, John J. (S)	North Liberty	St. Joseph
Hare, Daniel M.	Evansville	Vanderburgh
Hare, Earl H. (S)	Indianapolis	Marion
Hare, Francis W., Jr.	Madison	Jefferson-Switzerland
Hare, Laura	Indianapolis	Marion
Harger, Robert W.	Indianapolis	Marion
Harkness, Robert G.	Terre Haute	Vigo
Harless, Clarence M.	Chesterton	Porter
Harless, Fred	Monroeville	Allen
Harlan, William L.	Evansville	Vanderburgh
Harmon, Carl J.	Richmond	Wayne-Union
Harmon, Wayne	Lynn	Randolph
Harned, Ben K.	Evansville	Vanderburgh
Harold, Albert H. (S)	Indianapolis	Marion
Harold, Norris E. (S)	Indianapolis	Marion
Harper, James W.	East Chicago	Lake
Harrington, James F.	Logansport	Cass
Harris, Carl B.	Indianapolis	Marion
Harris, George F.	Madison	Jefferson-Switzerland
Harris, Neil	Elkhart	Elkhart
Harris, Paul N.	Indianapolis	Marion
Harris, Robert F.	Noblesville	Hamilton
Harris, Robert L.	Evansville	Vanderburgh
Harris, Robert W.	New Albany	Floyd
Harrison, Benjamin L.	New Castle	Henry
Harshman, James A.	Great Lakes, Ill.	Marion
Harshman, Louis P.	Fort Wayne	Allen
Harstad, Casper	Rockville	Parke-Vermillion
Hart, L. Paul	Evansville	Vanderburgh
Hart, Robert B.	Columbus	Bartholomew-Brown
Hart, William D.	Anderson	Madison
Harter, Eli B.	Lafayette	Tippecanoe
Hartley, Clarence A., Jr.	Evansville	Vanderburgh

Name	City	County
Hartman, John J.	Angola	Steuben
Hartsough, Ralph I.	Lakeville	St. Joseph
Hartz, F. Minton	Evansville	Vanderburgh
Harvey, Bennett B.	Lafayette	Tippecanoe
Harvey, Harry C.	Fort Wayne	Allen
Harvey, Ralph J. (S)	Zionsville	Boone
Harvey, Verne K., Jr.	Indianapolis	Marion
Harvey, Verne K. Sr.	Indianapolis	Marion
Hasewinkel, Carroll W.	Carmel	Marion
Hasewinkle, August M.	Fort Wayne	Allen
Hash, John S.	Noblesville	Hamilton
Hashemi, Hossein	Warsaw	Kosciusko
Haslem, Ezra R.	Terre Haute	Vigo
Haslem, John R.	Terre Haute	Vigo
Haslinger, Clarence J.	Indianapolis	Marion
Hass, Caroline E.	W. Lafayette	Tippecanoe
Hass, Thomas W.	W. Lafayette	Tippecanoe
Hassel, Walter B.	Evansville	Vanderburgh
Hastings, Warren C.	Fort Wayne	Allen
Hatfield, Jack J.	Indianapolis	Marion
Hatfield, Nicholas W.	Indianapolis	Marion
Hathaway, C. Bishop	Indianapolis	Marion
Hattendorf, Anton P.	Fort Wayne	Allen
Haugseth, Ellsworth K.	South Bend	St. Joseph
Hauss, Augustus P. (S)	New Albany	Floyd
Havens, A. Lyle	Jeffersonville	Clark
Havens, Thomas R.	Jeffersonville	Clark
Havens, Oscar	Cicero	Hamilton
Havens, Russell E.	Fort Wayne	Allen
Hawes, James K. (S)	Columbus	Bartholomew-Brown
Hawes, Marvin E.	Columbus	Bartholomew-Brown
Hawk, Edgar A.	Madison, Wis.	Vanderburgh
Hawk, James H.	Indianapolis	Marion
Hawkins, Glen E.	South Bend	St. Joseph
Hawkins, Richard D.	Bedford	Lawrence
Hawtof, David B.	Indianapolis	Marion
Hay, Gene R.	Michigan City	La Porte
Hayes, J. D., Jr.	St. Louis, Mo.	Lake
Hayes, Jesse D.	East Chicago	Lake
Hayes, Theodore R.	Muncie	Delaware-Blackford
Haymond, George M.	Warsaw	Kosciusko
Haymond, Joseph L.	Indianapolis	Marion
Haynes, Arthur A.	Spencer	Owen-Monroe
Haynes, John T.	Indianapolis	Marion
Hays, Everett L.	Indianapolis	Marion
Haywood, John G.	Noblesville	Hamilton
Headley, Lloyd M.	Lebanon	Boone
Healey, Robert J.	Indianapolis	Marion
Heard, Albert	Evansville	Vanderburgh
Heck, Martin C.	Jasper	Dubois
Heckaman, Edward L.	Cedar Lake	Lake
Hedde, Eugene L.	Logansport	Cass
Hedgcock, Robert A.	Frankfort	Clinton
Hedrick, James T.	Gary	Lake
Hedrick, Philip W.	Indianapolis	Marion
Heilman, William C., Jr.	New Castle	Henry
Heilman, W. C., Sr. (S)	New Castle	Henry
Heimburger, Robert F.	Indianapolis	Marion
Heinrich, Weston A.	Evansville	Vanderburgh
Heinrichs, Harry H. (S)	Indianapolis	Marion
Held, George A.	Jasper	Dubois
Heller, Nelson L. (S)	Dunkirk	Jay
Helmen, Harry W. (S)	Rolling Prairie	St. Joseph
Helmer, Frederic A.	Cincinnati, Ohio	Allen
Helmer, John F.	South Bend	St. Joseph
Heminway, Norman L.	Elkhart	Elkhart
Hendershot, Eugene L.	Evansville	Vanderburgh
Henderson, Francis G.	Indianapolis	Marion
Henderson, Norman C.	Michigan City	La Porte
Henderson, Ramon A.	Muncie	Delaware-Blackford
Henderson, Robert N.	Brookston	Tippecanoe
Henderson, Roscoe C.	Indianapolis	Marion
Henderson, William P.	Indianapolis	Marion
Hendricks, Fred A.	Indianapolis	Marion
Hendricks, John W.	Indianapolis	Marion
Hendrix, Charles E.	Vincennes	Knox
Henley, Glenn (S)	Fairmount	Grant
Henn, R. Anthony	Greenfield	Hancock
Henry, Alvin L.	Columbus	Bartholomew-Brown
Henry, Howard J.	Knox	Starke
Henry, Russell S.	Indianapolis	Marion
Hensler, Benton M.	Anderson	Madison
Hepburn, C. K.	Indianapolis	Marion
Hepner, Herman	Kendallville	Noble
Hepner, Herman S.	Bloomington	Owen-Monroe
Herd, Cloyn R.	Peru	Miami
Herendeen, Elbie V.	Rochester	Fulton
Heritier, C. Jules	Columbia City	Whitley
Hermayer, Stephen	Evansville	Vanderburgh
Hernandez, I. C.	East Chicago	Lake
Herr, John W.	Tell City	Perry
Herrick, Charles L.	Akron	Fulton
Herrmann, Gordon T.	Evansville	Vanderburgh
Herrold, George W.	Lafayette	Tippecanoe
Hershberger, Philip G.	Fort Wayne	Allen
Hershey, Ernest A. (S)	Churubusco	Whitley
Herzberg, Milton	Clinton	Parke-Vermillion
Herzer, Clarence C.	Evansville	Vanderburgh
Hess, Paul P.	New Albany	Floyd
Hetherington, John A.	Indianapolis	Marion
Hetman, Mitchell J.	Westville	La Porte
Heubi, John E.	Indianapolis	Marion
Hibbs, William G.	Franklin	Johnson
Hibner, Kermit Q.	Bloomington	Owen-Monroe
Hibner, Nolan A.	Monticello	White
Hickam, John B.	Indianapolis	Marion
Hickman, A. Lee	Hammond	Lake
Hickman, Donald M.	Fort Wayne	Allen
Hickman, Jack W.	Indianapolis	Marion
Hickman, Walter F. (S)	Indianapolis	Marion
Hicks, Murwyn L.	Indianapolis	Marion
Hicks, Wilbur P.	Indianapolis	Marion
Higbee, Paul (S)	Sullivan	Sullivan
Higgins, James L.	Minot A.F.B. N. Dakota	Pike
Higgins, John R.	New Albany	Floyd
Higgins, Kenneth E.	Fort Wayne	Allen
High, Ralph L.	Muncie	Delaware-Blackford
Hilbert, John W.	South Bend	St. Joseph
Hildebrand, John O., Jr.	South Bend	St. Joseph
Hill, Gladys Marie	Richmond	Wayne-Union
Hill, Harold D.	Richmond	Wayne-Union
Hill, Howard E.	St. Thomas, Virgin Islands	Delaware-Blackford
Hill, James K.	Indianapolis	Marion
Hill, Kenneth G.	New Castle	Henry
Hill, Lloyd	Peru	Miami
Hill, Paul G.	Cambridge City	Wayne-Union
Hill, Robert E.	Yorktown	Delaware-Blackford
Hill, Theodore A.	South Bend	St. Joseph
Hill, Wallace C.	South Bend	St. Joseph
Hillenbrand, Charles	Michigan City	La Porte
Hillery, John	Warsaw	Kosciusko
Hillery, Robert L.	Fort Wayne	Allen
Hillis, Lowell J.	Logansport	Cass
Hillman, Marion W.	South Bend	St. Joseph
Hillman, Wm. H. (S)	South Bend	St. Joseph
Himebaugh, Gilbert J.	Evansville	Vanderburgh

Name	City	County
Himler, James M.	Indianapolis	Marion
Hinchman, Jean F.	Parker	Delaware-Blackford
Hines, Archie V.	Auburn	De Kalb
Hines, Don C.	Indianapolis	Marion
Hines, John H.	Auburn	De Kalb
Hippensteel, Harland	Auburn	De Kalb
Hippensteel, Russell R.	Culver	Marshall
Hipskind, Richard E.	Fort Wayne	Allen
Hirsch, Herman L.	Mt. Vernon	Posey
Hisrich, Lloyd W.	Batesville	Ripley
Hobbs, Arthur A.	Evansville	Vanderburgh
Hobgood, James L.	Evansville	Vanderburgh
Hochhalter, Marian	Logansport	Cass
Hodges, Fletcher (S)	Indianapolis	Marion
Hodgin, Phillip T.	Orleans	Orange
Hodurski, Zigfield	Gary	Lake
Hoetzer, Eldore M.	New Haven	Allen
Hoffman, Arthur F.	Fort Wayne	Allen
Hoffman, Doris	Vincennes	Knox
Hoffman, Herman	Indianapolis	Marion
Hoffman, Max N.	Covington	Fountain-Warren
Hofmann, J. William (S)	Indianapolis	Marion
Hogan, Michael A.	Indianapolis	Marion
Hogan, Thomas W.	Terre Haute	Vigo
Hogle, Frank D.	Lafayette	Tippecanoe
Hoham, Frederick D.	Portage	Lake
Hoit, Leonard	Gary	Lake
Holdeman, Lillian S.	South Bend	St. Joseph
Holdeman, Richard W.	South Bend	St. Joseph
Holladay, Lloyd J.	Lafayette	Tippecanoe
Holland, Deward J. (S)	Bloomington	Owen-Monroe
Holland, William M.	Indianapolis	Marion
Holland, Philip T.	Bloomington	Owen-Monroe
Hollenberg, Alfred E.	Hagerstown	Henry
Hollenberg, Edward L.	Winamac	Pulaski
Holloway, William A. (S)	Logansport	Cass
Holman, Jerome E., Sr. (S)	Indianapolis	Marion
Holman, Jerome E., Jr.	Indianapolis	Marion
Holmes, Claude D. (S)	Coral Gables, Fla.	Clinton
Holmes, John L.	Muncie	Delaware-Blackford
Holsinger, Robert E.	Fort Wayne	Allen
Holtzman, Norman N.	South Bend	St. Joseph
Holtzman, Paul W.	Bloomington	Owen-Monroe
Honan, Paul R.	Lebanon	Boone
Hood, Ainslee A.	Indianapolis	Marion
Hooke, Samuel W. (S)	Noblesville	Hamilton
Hooker, Donald J.	Ligonier	Noble
Hoopes, Jane M.	Evansville	Vanderburgh
Hoover, Dewey A.	Terre Haute	Vigo
Hoover, J. Guy	Evansville	Vanderburgh
Hoover, Peter B.	Boonville	Warrick
Hopkins, Lester H.	Versailles	Ripley
Hoppenrath, William (S)	Elwood	Madison
Horning, Richard R.	Logansport	Cass
Horst, William N.	Crown Point	Lake
Horswell, Richard G.	Bristol	Elkhart
Horswell, Richard R.	Lafayette	Tippecanoe
Horwitz, Thomas	Indianapolis	Marion
Hostetler, Carl M.	Goshen	Elkhart
Hostetter, Irwin S.	Muncie	Delaware-Blackford
Hotalen, William B.	Evansville	Vanderburgh
Houser, D. Stanley	South Bend	St. Joseph
Houser, Wayne W.	Monon	White
Houston, Fred D.	Lawrenceburg	Dearborn-Ohio
Hovda, Richard B.	Evansville	Vanderburgh
Hover, Galen	Marion	Grant
How, John T. (S)	Lakeville	St. Joseph
How, Louis E.	South Bend	St. Joseph
Howard, Joseph D.	Culver	Marshall
Howard, Wm. Harry	Hammond	Lake
Howe, Fordyce L.	Fort Wayne	Allen
Howell, Arthur	Indianapolis	Marion
Howell, Joseph D.	Indianapolis	Marion
Howell, Robert D.	Indianapolis	Marion
Hoyt, John M.	Kokomo	Howard
Hoyt, Lester H.	Indianapolis	Marion
Hoyt, Millard L.	Indianapolis	Marion
Hrisomalos, Frank N.	Bloomington	Owen-Monroe
Hubbard, Jesse D.	Indianapolis	Marion
Huber, Carl P.	Indianapolis	Marion
Huckleberry, Irvin E.	Salem	Washington
Huddle, John R.	Indianapolis	Marion
Hudson, Arlington M.	Connersville	Fayette-Franklin
Hudson, Foster J.	Indianapolis	Marion
Huffman, Galen C.	Bluffton	Wells
Huffman, Verlin P.	S. Whitley	Whitley
Hughes, Richard R.	Lafayette	Tippecanoe
Huggins, Victor S.	Evansville	Vanderburgh
Hull, De Wayne L.	Indianapolis	Marion
Hull, James E.	Lafayette	Tippecanoe
Hull, Ronald H.	Indianapolis	Marion
Hummel, Russel M.	Marion	Grant
Hummons, Francis D.	Indianapolis	Marion
Humphrey, Edward M.	Covington	Fountain-Warren
Humphrey, Paul E.	Terre Haute	Vigo
Humphreys, Joe E.	Vincennes	Knox
Humphreys, John L.	Fort Wayne	Allen
Humphreys, John W.	Crawfordsville	Montgomery
Hunsberger, Walter G.	Lafayette	Tippecanoe
Hunt, Edgar J.	Terre Haute	Vigo
Hunt, Gayle J.	Richmond	Wayne-Union
Hunter, Donn R.	Greenfield	Hancock
Hunter, Frank P. (S)	Lafayette	Tippecanoe
Hunter, Lowell G.	Lawrenceburg	Dearborn-Ohio
Huoni, John S.	Jeffersonville	Clark
Hurley, James W.	Elkhart	Elkhart
Hurley, John R.	Daleville	Delaware-Blackford
Hursey, Virgil G.	Milford	Koscuisko
Hurt, LaVerne B.	Delray Beach, Fla.	Marion
Hurteau, William W.	Indianapolis	Marion
Huse, William M.	Indianapolis	Marion
Husted, Robert G.	Hammond	Lake
Hutchison, Donald R.	Fountain City	Wayne-Union
Hutto, William H.	Kokomo	Howard
Hyatt, Gilbert T.	Evansville	Vanderburgh
Hyde, Carroll C.	South Bend	St. Joseph
Hyndman, Lloyd G.	Hammond	Lake

I

Imhof, Joseph D.	Muncie	Delaware-Blackford
Ingwell, Guy B.	Knox	Starke
Inlow, Herbert H.	Shelbyville	Shelby
Inlow, William D. (S)	Shelbyville	Shelby
Irish, Wilbur J.	East Chicago	Lake
Irmscher, George W.	Fort Wayne	Allen
Irvine, William O.	Indianapolis	Marion
Irwin, Glenn W., Jr.	Indianapolis	Marion
Irwin, Seth H. (S)	Anderson	Madison
Isenogle, Kenneth F.	Fort Wayne	Allen
Iske, Paul G.	Indianapolis	Marion
Isler, Nathaniel C.	Jeffersonville	Clark
Iterman, George E. (S)	New Castle	Henry
Ivy, John H.	Elkhart	Elkhart

J

Jackson, Charles E.	Bluffton	Wells
Jackson, Dean B.	Hartford City	Delaware-Blackford

Name	City	County
Jackson, Frederick E. (S)	Indianapolis	Marion
Jackson, James W. (S)	Indianapolis	Marion
Jackson, John F.	Fort Wayne	Allen
Jackson, John K.	Aurora	Dearborn-Ohio
Jacobs, E. Robert	Columbus	Bartholomew-Brown
Jaeger, Alfred S. (S)	Indianapolis	Marion
Jahns, Albin A.	Gary	Lake
James, John M.	Tell City	Perry
James, Nicholas A. (S)	Tell City	Perry
James, Thomas, Jr.	Huntington	Huntington
Jankowski, Ernest B.	South Bend	St. Joseph
Jannasch, Maurice C.	Richmond, Va.	Lake
Jaquith, Orville S. (S)	Indianapolis	Marion
Jarrett, John C.	Marion	Grant
Jarrett, Paul E.	Anderson	Madison
Jay, Arthur N.	Indianapolis	Marion
Jay, James M.	Indianapolis	Marion
Jehanyar, M. Ali	South Whitley	Whitley
Jenkins, Robert E.	Indianapolis	Marion
Jennings, Frank L. (S)	Indianapolis	Marion
Jernigan, William R.	Memphis, Tenn.	Vanderburgh
Jett, Clyde W.	Seelyville	Vigo
Jewell, Earl B. (S)	Logansport	Cass
Jewell, George M.	Kokomo	Howard
Jewett, Joe H.	Indianapolis	Marion
Jinnings, Loren E.	Garrett	De Kalb
Jobes, James E.	Indianapolis	Marion
Jobes, Norman E. (S)	Indianapolis	Marion
Johns, David R. (S)	East Chicago	Lake
Johns, Nicholas C.	South Bend	St. Joseph
Johnson, Arnold L.	Gary	Lake
Johnson, Earl H.	Indianapolis	Marion
Johnson, George M.	Richmond	Wayne-Union
Johnson, Harold V.	Evansville	Vanderburgh
Johnson, Herbert S.	Lafayette	Tippecanoe
Johnson, James B.	Greencastle	Putnam
Johnson, Jerome M.	Jeffersonville	Clark
Johnson, Lonnie B.	Gary	Lake
Johnson, Lowell R.	Lafayette	Tippecanoe
Johnson, Paul D.	Terre Haute	Vigo
Johnson, Stephen L.	Evansville	Vanderburgh
Johnson, Thomas W.	Indianapolis	Marion
Johnson, William A.	North Vernon	Jackson-Jennings
Johnston, Donald D. (S)	Westville	La Porte
Johnston, Richard M.	Fort Wayne	Allen
Johnston, Robert G. (S)	Huntington	Huntington
Johnston, Robert L.	Melbourne, Fla.	Wells
Jolly, Lewis E.	Madison	Jefferson-Switzerland
Jolly, Wesley P. (S)	Richland	Spencer
Jones, Albert T.	Anderson	Madison
Jones, Allen W.	Indianapolis	Marion
Jones, Charles A.	Franklin	Johnson
Jones, David	Lafayette	Tippecanoe
Jones, David E.	Indianapolis	Marion
Jones, David G.	Anderson	Madison
Jones, David H.	Charlestown	Clark
Jones, Edwin F.	Rensselaer	Jasper-Newton
Jones, Eli S.	Hammond	Lake
Jones, Francis P.	Indianapolis	Marion
Jones, George L.	Indianapolis	Marion
Jones, Gordon C.	Indianapolis	Marion
Jones, Horace E.	Anderson	Madison
Jones, J. Carl	Logansport	Cass
Jones, John G. (S)	Vincennes	Knox
Jones, King S.	Michigan City	La Porte
Jones, Lawrence R.	Greencastle	Putnam
Jones, Robert B.	Elkhart	Elkhart
Jones, Roland W.	Camp Lejeune, N. C.	Marion
Jontz, Joe G.	Fort Wayne	Allen
Jontz, Richard L.	Indianapolis	Marion
Jordan, Leo E.	Lynn	Randolph
Jordan, Richard A.	Corydon	Harrison-Crawford
Joseph, Rex M.	Indianapolis	Marion
Jowitt, Richard H.	Indianapolis	Marion
Judd, Donald R.	Indianapolis	Marion
Judd, Russell L.	Indianapolis	Marion
Judson, Walter E.	Indianapolis	Marion
Juergens, Richard B.	Fort Wayne	Allen
Jurgensen, Walter T.	Fort Wayne	Allen
Justin, Renate G.	Terre Haute	Vigo

K

Kabel, Robert N.	Terre Haute	Vigo
Kahler, Maurice V.	Indianapolis	Marion
Kahn, Alexander J.	Indianapolis	Marion
Kahn, Howard L.	Indianapolis	Marion
Kaiser, George C.	Indianapolis	Marion
Kalb, Everett L.	Indianapolis	Marion
Kalker, Morton	Muncie	Delaware-Blackford
Kaltenthaler, Albert	Gary	Lake
Kamen, Jack M.	Redwood City, Calif.	Lake
Kamm, Bernard A.	South Bend	St. Joseph
Kammen, Leo	Indianapolis	Marion
Kammen, Robert	Oklahoma City, Okla.	Marion
Kammer, Grace C.	Muncie	Delaware-Blackford
Kammer, Walter F.	Muncie	Delaware-Blackford
Kantzer, Floyd B.	Garrett	De Kalb
Karberg, Richard J.	Lafayette	Tippecanoe
Karlick, Joseph	Arcadia	Hamilton
Karn, John W.	South Bend	St. Joseph
Karnafel, Eugene T.	Madison	Jefferson-Switzerland
Karns, John D.	Winamac	Pulaski
Karol, Herbert J.	Fort Wayne	Allen
Karpel, Bernard	Mooresville	Hendricks
Karsell, William A.	Indianapolis	Marion
Kasting, Gerald	Bedford	Lawrence
Katterjohn, James C.	Indianapolis	Marion
Kauffman, Harley M.	Evansville	Vanderburgh
Kauffman, Nelson N.	Indianapolis	Marion
Kaufman, Julian R.	Fort Wayne	Allen
Kaufman, Lillie S.	Goshen	Elkhart
Kay, Oran E.	Spencer	Owen-Monroe
Keating, John U.	Elkhart	Elkhart
Kebel, Arthur P.	Indianapolis	Marion
Keck, Carleton A.	Fort Wayne	Allen
Keeling, Forrest E.	Portland	Jay
Keenan, George B.	Indianapolis	Marion
Keenan, Reid L.	Indianapolis	Marion
Keever, Charles H.	Indianapolis	Marion
Keiser, Venice D.	Indianapolis	Marion
Kellar, Philip E.	Hobart	Lake
Keller, Frank G. (S)	N. Manchester	Madison
Kelly, Don E.	Indianapolis	Marion
Kelly, Frank (S)	Argos	Marshall
Kelly, John B.	Evansville	Vanderburgh
Kelly, Wendell C.	Anderson	Madison
Kelsey, Lawrence E.	Phoenix, Ariz.	Fulton
Kelsey, Robert M., Jr.	La Porte	La Porte
Kelsey, Robert M., Sr.	La Porte	La Porte
Kemker, Bernard P.	Tell City	Perry
Kemp, John T.	Michigan City	La Porte
Kemp, William A.	Connersville	Fayette-Franklin
Kempf, Gerald F.	Rockville	Parke-Vermillion

Name	City	County
Kendall, Forest M.	Nappanee	Elkhart
Kendrick, Frank J.	Gary	Lake
Kendrick, William M.	Mooresville	Morgan
Kennedy, Eva N. (S)	Camden	Carroll
Kennedy, Hunter F.	Indianapolis	Marion
Kennedy, Joseph T.	Indianapolis	Marion
Kennedy, Myron S.	Goshen	Elkhart
Kennedy, Walter U. (S)	New Castle	Henry
Kenney, David B.	Indianapolis	Marion
Kenney, Francis D.	Hammond	Lake
Kenoyer, Wilbur L.	Biloxi, Miss.	Marion
Kent, Richard N.	Fort Wayne	Allen
Kenyon, Charles E.	Cambridge City	Wayne-Union
Kenzler, Jack I.	Indianapolis	Marion
Kephart, S. Bruce	Bluffton	Wells
Kepler, Robert W.	La Porte	La Porte
Keplinger, James E.	Munster	Lake
Kercheval, John M.	Clinton	Parke-Vermillion
Kern, Clarence G.	Lebanon	Boone
Kerr, Charlotte H.	Michigan City	La Porte
Kerr, Donald M.	Bedford	Lawrence
Kerr, Harry R.	Indianapolis	Marion
Kerr, John E.	Michigan City	La Porte
Kerrigan, John F.	Michigan City	La Porte
Kerrigan, Robert L. (S)	Michigan City	La Porte
Kerrigan, William F.	Connersville	Fayette-Franklin
Keseric, N. E.	French Lick Springs	Orange
Kesim, Mufit	Elkhart	Elkhart
Kessler, Robert B.	Evansville	Vanderburgh
Ketcham, Jane M. (S)	Indianapolis	Marion
Ketcham, John S. (S)	Rossville	Clinton
Keyes, Robert C.	Fort Wayne	Allen
Khaton, Odessa M.	Gary	Lake
Kidd, James G. (S)	Wood, Wis.	Wabash
Kidder, Orva T.	Fort Wayne	Allen
Kiechle, Frederich L.	Evansville	Vanderburgh
Kielton, Melvyn	Elkhart	Elkhart
Kiely, John T.	Anderson	Madison
Kilgore, Byron W.	Topeka, Kan.	Marion
Kilmer, Warren L.	Portage	Lake
Kim, Young D.	Beech Grove	Marion
Kimbrough, Robert F.	Fort Wayne	Allen
Kime, Charles E.	Richmond	Wayne-Union
Kime, Edwin N. (S)	Bloomington	Marion
Kincaid, Raymond K.	Tipton	Tipton
Kincaid, Robert S.	Evansville	Vanderburgh
Kindell, Hurschell D.	New Richmond	Montgomery
King, Harold	Indianapolis	Marion
King, Jay M.	Logansport	Cass
King, Joseph W.	Anderson	Madison
King, Robert W.	Cedar Lake	Lake
King, William E.	Indianapolis	Marion
Kingsbury, John K. (S)	Indianapolis	Marion
Kinneman, Robert E.	Greenfield	Hancock
Kintner, Burton E.	Elkhart	Elkhart
Kinzel, Robert J. W.	Indianapolis	Marion
Kirby, Ted C.	Greenfield	Hancock
Kirkhoff, Paul J.	Indianapolis	Marion
Kirklin, Oren L.	Indianapolis	Marion
Kirshman, Forrest E.	Muncie	Delaware-Blackford
Kirtley, James M.	Crawfordsville	Montgomery
Kirtley, Robert W.	Danville	Hendricks
Kirtley, William R.	Indianapolis	Marion
Kissel, Wesley A.	Indianapolis	Marion
Kissinger, Knight L.	Angola	Steuben
Kistler, James J.	La Porte	La Porte
Kistner, Arthur W.	Elkhart	Elkhart
Kitterman, Harry E.	Indianapolis	Marion
Klain, Benjamin V.	Indianapolis	Marion
Klamer, Charles H.	Jasper	Dubois
Klatch, Ben Z.	Lafayette	Tippecanoe
Klatte, Eugene C.	Indianapolis	Marion
Klaus, Julius M.	Gary	Lake
Kleifgen, William A.	Fort Wayne	Allen
Klein, Emanuel	Marion	Grant
Kleindorfer, Roscoe L.	Evansville	Vanderburgh
Kleinman, Francis J. (S)	Hebron	Porter
Kleopfer, Ronald G.	Fort Wayne	Allen
Klepfer, Jefferson F.	Richmond	Wayne-Union
Klepinger, Carol A.	Indianapolis	Marion
Klepinger, Harry E.	Lafayette	Tippecanoe
Kline, Charles D.	Vincennes	Knox
Klingerman, John J.	San Antonio, Texas	Marion
Klooze, Kenneth W.	Fort Wayne	Allen
Klos, Stanley J.	Valparaiso	Porter
Kmak, Chester	Detroit, Mich.	Lake
Knapp, Arthur L. (S)	South Bend	St. Joseph
Kneidel, John H.	Indianapolis	Marion
Knight, Lewis W.	Fort Wayne	Allen
Knode, Kenneth T.	South Bend	St. Joseph
Knotts, Halleck S.	Columbus	Bartholomew-Brown
Knotts, Slater	Columbus	Jackson-Jennings
Knowles, Charles Y.	Indianapolis	Marion
Knowles, Robert P.	Indianapolis	Marion
Ko, Richard	Gaston	Delaware-Blackford
Kobrin, Meyer W.	Gary	Lake
Koch, Elmer L.	Danville	Hendricks
Koch, Howard W.	Winchester	Randolph
Koehler, Elmer G.	Elkhart	Elkhart
Koenig, Robert L.	Valparaiso	Porter
Kohlstaedt, Karl C.	Indianapolis	Marion
Kohlstaedt, Kenneth G.	Indianapolis	Marion
Kohne, Gerald J.	Decatur	Adams
Kohne, Robert W.	Lafayette	Tippecanoe
Kolanko, Leon A.	Hammond	Lake
Kolettis, John G.	Gary	Lake
Komoroske, John E.	East Chicago	Lake
Kooiker, John E.	Indianapolis	Marion
Koons, Karl M.	Indianapolis	Marion
Koontz, William A.	Gas City	Grant
Kopanko, Bernard F.	East Chicago	Lake
Kopcha, Joseph E.	Gary	Lake
Kopecky, Robert R.	Indianapolis	Marion
Kopp, Otis A.	Anderson	Madison
Kopp, William R.	Anderson	Madison
Koransky, David S.	Hammond	Lake
Korn, Jerome M.	Gary	Lake
Kornafel, L. H.	Indianapolis	Marion
Koss, K. William	Muncie	Delaware-Blackford
Kott, Alexander	Munster	Lake
Krabill, Willard S.	Goshen	Elkhart
Kraft, Bennett	Indianapolis	Marion
Kraning, Kenneth K.	Kewanna	Fulton
Krause, Friedrich	Elkhart	Elkhart
Kreitl, Dorothy R.	Richmond	Wayne-Union
Kremers, George A.	Kokomo	Howard
Kresler, Leon E.	Kentland	Tippecanoe
Kress, James W.	Muncie	Delaware-Blackford
Krieble, William W.	Terre Haute	Vigo
Kriel, William B.	Indianapolis	Marion
Krsek, Archie J.	Hobart	Lake
Krueger, John E.	Fort Wayne	Allen
Krueger, John E.	South Bend	St. Joseph
Krueger, Robert B.	Columbus	Bartholomew-Brown
Kruse, Edward H. (S)	Fort Wayne	Allen
Kruse, Walter E.	Fort Wayne	Allen
Kubik, Francis J.	Michigan City	La Porte

Name	City	County
Kubley, James D.	Plymouth	Marshall
Kudele, Louis T.	Whiting	Lake
Kuhn, Arthur J.	Hammond	Lake
Kuhn, Frederick L.	South Bend	St. Joseph
Kuhn, Hedwig S.	Hammond	Lake
Kuhn, Robert W.	Wilkinson	Hancock
Kunkler, Arnold W.	Terre Haute	Vigo
Kunkler, Joseph (S)	Terre Haute	Vigo
Kunkler, William C.	Terre Haute	Vigo
Kuntz, Herman W.	Indianapolis	Marion
Kunz, Albert L.	Greenwood	Johnson
Kurlander, Gerald J.	Red Bank, N. J.	Marion
Kurtz, Fred B. (S)	Indianapolis	Marion
Kurtz, Philip L.	Indianapolis	Marion
Kurtz, Richard	Chicago, Ill.	Marion
Kurtz, William A.	Tipton	Tipton
Kwitny, Isadore J.	Indianapolis	Marion
Kyle, Michael A.	Indianapolis	Lake
L		
LaBier, Clarence R. (S)	Terre Haute	Vigo
Lacy, John D., Jr.	Medaryville	Pulaski
Ladig, Donald S.	Fort Wayne	Allen
LaDine, Clarence B.	Indianapolis	Marion
LaFollette, Donald R.	New Albany	Floyd
LaFollette, Forrest R.	Hammond	Lake
LaFollette, Robert E.	New Albany	Floyd
Lahr, Richard E.	Marion	Grant
Laker, Gene C.	Fort Wayne	Allen
Lalonde, Alban H.	Washington	Shelby
Lamb, Emmett B.	Indianapolis	Marion
Lamb, J. Leonard	South Bend	St. Joseph
Lamb, Russell W.	Indianapolis	Marion
Lamber, Chet K.	Indianapolis	Marion
Lamey, James L.	Anderson	Madison
Lamey, Paul T.	Anderson	Madison
Lamkin, E. Henry, Jr.	Indianapolis	Marion
Lampe, Elfred H.	Fort Wayne	Allen
Lancet, Robert O.	Terre Haute	Vigo
Land, Francis L.	Fort Wayne	Allen
Land, Richard N.	Anderson	Madison
Landis, Charles B.	Lafayette	Tippecanoe
Landon, David J.	Union City	Randolph
Lands, Robert M.	Portage	Lake
Landwehr, Alfons	Indianapolis	Marion
Lane, Charlotte E.	Indianapolis	Marion
Lane, William H.	South Bend	St. Joseph
Lang, Erich K.	Indianapolis	Marion
Lang, Joseph E.	South Bend	St. Joseph
Langdon, Harry K. (S)	Indianapolis	Marion
Langohr, John L.	Columbia City	Whitley
Langrall, Harrison M., Jr.	Marion	Grant
Lanman, John U.	Munster	Lake
Lanning, R. Adrian	Noblesville	Hamilton
Lansford, Kenneth G.	Ft. Rucker, Ala.	Marion
Laramore, Ward	Indianapolis	Marion
Larmore, Joseph L.	Anderson	Madison
Larmore, Sarah H.	Anderson	Madison
Larrabee, James F.	Munster	Lake
Larson, Goyt O.	La Porte	La Porte
LaSalle, Richard M.	Wabash	Wabash
LaSalle, Robert M., Jr.	Wabash	Wabash
LaSalle, Robert M., Sr.	Wabash	Wabash
Lashmet, Michael H.	Indianapolis	Marion
Lasich, Anthony R.	Indianapolis	Marion
Laubscher, Clarence	Evansville	Vanderburgh
Laudeman, Walter A.	Elwood	Madison
Lauer, Dorothy B.	Dana	Parke-Vermillion
Lautz, Herbert A.	Hammond	Lake
Lavengood, Russell W.	Marion	Grant
Lawler, George F.	Indianapolis	Marion
Lawrence, Joseph C.	Evansville	Vanderburgh
Lawson, Allan J.	Indianapolis	Marion
Lawson, Isaac H. (S)	Kendallville	Noble
Laycock, Richard M.	Fort Wayne	Allen
Layman, Douglas C.	Indianapolis	Marion
Lazo, Vicente R.	Gary	Lake
Leahy, Howard J.	Pendleton	Madison
Leasure, J. Kent (S)	Indianapolis	Marion
Leatherman, Harter L.	Indianapolis	Marion
Lebioda, Henry S.	Gary	Lake
Lee, Glen Ward	Richmond	Wayne-Union
Lee, James	Terre Haute	Vigo
Lee, John M. (S)	Rushville	Rush
Lee, Robert Y.	Valparaiso	Porter
Leffel, James M.	Indianapolis	Marion
Leffler, William T.	Indianapolis	Marion
Lehman, Emery W.	Bluffton	Wells
Lehman, Kenneth M.	Topeka	LaGrange
Lehmberg, Otto F. C.	Columbia City	Whitley
Leibundguth, Henry	Evansville	Vanderburgh
Leich, Charles F.	Evansville	Vanderburgh
Leinbach, Earl R.	Hamlet	Starke
LeMaster, Theodore R.	Indianapolis	Marion
Leming, Ben L.	Fort Wayne	Allen
Lenk, George G.	Fort Wayne	Allen
Lenox, Jack	Lebanon	Boone
Leonard, Henry S. (S)	Indianapolis	Marion
Leroy, Alvin G.	Alexandria	Madison
Leser, Ralph U.	Indianapolis	Marion
Lester, Vern L.	South Bend	St. Joseph
Lett, Emory B.	Loogootee	Daviess-Martin
Levatin, Bernard I.	South Bend	St. Joseph
Levering, Guy P. (S)	Lafayette	Tippecanoe
Levi, Leon	Indianapolis	Marion
Levin, Eli L.	East Chicago	Lake
Levin, Ralph T.	Indianapolis	Marion
Levkoff, Abner H.	South Bend	St. Joseph
Lewis, Earl T.	Evansville	Vanderburgh
Lewis, George N.	Gary	Lake
Lewis, James F.	Liberty	Wayne-Union
Lewis, Lucien A.	Gary	Lake
Lewis, Paul S.	Indianapolis	Marion
Lewis, R. Earl	Indianapolis	Marion
Lewis, Robert J.	Lawrence	Marion
Lichtenberg, Melvin	Indianapolis	Marion
Liddell, Charles K.	Michigan City	La Porte
Lidikay, Edward C.	Indianapolis	Marion
Life, Homer L.	New Castle	Henry
Lind, Jaap J.	Mulberry	Tippecanoe
Lindenborg, Paul G.	Indianapolis	Marion
Lindgren, Ivan T.	Lawrenceburg	Dearborn-Ohio
Lindsay, Hamlin B.	Washington	Daviess-Martin
Ling, John F.	Richmond	Wayne-Union
Lingeman, Byron N.	Crawfordsville	Montgomery
Lingeman, Raleigh E.	Indianapolis	Marion
Lingeman, Roger E.	Indianapolis	Marion
Link, Charles W., Jr.	Greenwood	Johnson
Link, Goethe (S)	Indianapolis	Marion
Link, William C.	Bloomington	Owen-Monroe
Lionberger, John R.	South Bend	St. Joseph
Lippoldt, Charles L.	Oldenburg	Ripley
Lipschutz, Harold	Gary	Lake
Lipsey, Alfred J.	Gary	Lake
Liss, Emanuel C.	South Bend	St. Joseph
Little, John W. (S)	Decatur, Ill.	Marion
Littlefield, Paul A.	Indianapolis	Marion
Littlefield, Shirley	Indianapolis	Marion
Litzenberger, Sam W.	Anderson	Madison
Llamas, Dominador F.	North Judson	Starke
Lloyd, Frank P.	Indianapolis	Marion
Lloyd, Joe R.	Noblesville	Hamilton
Lloyd, Robert P.	Fort Wayne	Allen
Lochry, Ralph L. (S)	Indianapolis	Marion

Name	City	County
Lockhart, Jack M.	Connersville	Fayette-Franklin
Lockhart, Philip B.	South Bend	St. Joseph
Loehr, William M.	Indianapolis	Marion
Loewenstein, Werner L.	Terre Haute	Vigo
Logan, James Z.	Richmond	Wayne-Union
Logan, Richard S.	Fort Wayne	Allen
Lohman, Robert M.	Fort Wayne	Allen
Lohoff, Lewis C.	Tell City	Perry
Loh, Hwei Ya (Chang)	Gary	Lake
Loh, Wei-Ping	Gary	Lake
Long, Keith J.	Hammond	Lake
Long, Malcolm D.	Indianapolis	Hamilton
Long, Max R.	Marion	Grant
Long, Paul L.	Anderson	Madison
Longshore, Robert E.	Kokomo	Howard
Lonngren, Dudley H.	Marion	Grant
Loomis, Charles H.	Richmond	Wayne-Union
Loomis, Norman S.	Indianapolis	Marion
Loop, Frederick A.	Lafayette	Tippecanoe
Lord, Glen C.	Indianapolis	Marion
Lorenty, Thaddeus B.	Gary	Lake
Lorman, James G.	Fort Wayne	Allen
Louden, Robert W.	Indianapolis	Marion
Loudermilk, Jack L.	Fort Wayne	Allen
Loudermilk, Richard G.	Indianapolis	Marion
Loughlin, Lawrence L	Indianapolis	Marion
Love, George N.	Indianapolis	Marion
Love, V. Logan	Marion	Grant
Lovell, Martin H.	Gary	Lake
Lovett, Harvey D.	Whitestown	Boone
Loving, Jury B.	New Goshen	Vigo
Lowery, George E.	Butlerville	Jackson-Jennings
Lowry, Donald J.	Muncie	Delaware-Blackford
Lozow, David	Indianapolis	Marion
Lucas, Clarence A., Jr.	Indianapolis	Marion
Luckett, Coen L.	Terre Haute	Vigo
Luckey, James E.	Wolf Lake	Whitley
Luginbill, Howard M.	Berne	Adams
Lukemeyer, George T.	Indianapolis	Marion
Lukemeyer, St. John	Jasper	Dubois
Lundblad, Wilfred M.	Bloomington	Owen-Monroe
Lundeberg, Ralph A.	Griffith	Lake
Lundt, Milo O.	Elkhart	Elkhart
Lunsford, Thomas E.	Indianapolis	Marion
Lurie, Paul R.	Indianapolis	Marion
Luros, J. Theodore	Indianapolis	Marion
Lutes, David L. (S)	Edinburg	Johnson
Luther, William C.	Elkhart	Elkhart
Lutz, Georgianna	Gary	Lake
Luzadder, John E.	New Carlisle	St. Joseph
Lybrook, Daniel E. (S)	Young America	Cass
Lybrook, William B.	Indianapolis	Marion
Lyman, Frank L.	White Plains, N. Y.	Vanderburgh
Lynch, Harold D.	Evansville	Vanderburgh
Lynch, Otis R.	Marengo	Harrison-Crawford
Lynn, Gene E.	Indianapolis	Marion
Lyon, Florence M.	Portland	Jay
Lyon, William C.	Fort Wayne	Allen
Lyons, L. Mason	Terre Haute	Vigo
Lyons, Robert E.	Bloomington	Owen-Monroe
Lytwakiwsky, Anatol	Gary	Lake

M

Name	City	County
MacCollum, M. Speers	Indianapolis	Marion
MacDougall, John D.	Indianapolis	Marion
MacKenzie, Pierce	Evansville	Vanderburgh
MacLeod, Donald F.	W. Lafayette	Tippecanoe
MacLeod, John K.	South Bend	St. Joseph
Machledt, John H.	Whiteland	Johnson
Mackel, Frederick O.	Fort Wayne	Allen
Mackey, Colonel G. (S)	Logansport	Cass
Mackey, Harry S. (S)	Indianapolis	Marion
Mackey, John E.	Indianapolis	Marion
Macri, Paul A.	Indianapolis	Marion
Macy, George W.	Columbus	Bartholomew-Brown
Madlang, Rodolfo M.	Munster	Lake
Madden, Robert J.	Indianapolis	Marion
Mader, John H.	Richmond	Wayne-Union
Madston, A. Ricks	Indianapolis	Marion
Magennis, Herbert L. (S)	Indianapolis	Marion
Mahaffey, John E.	Indianapolis	Marion
Mahank, Camiel C.	Mishawaka	St. Joseph
Mahoney, Charles L.	Terre Haute	Vigo
Majsterek, Stanley L.	Gary	Lake
Makovsky, Theodore	Valparaiso	Porter
Malcolm, Russell L., Jr.	Indianapolis	Marion
Malcolm, Russell L.	Richmond	Wayne-Union
Malone, Leander A.	Terre Haute	Vigo
Malott, Fred R.	Converse	Miami
Malouf, Stephen D. (S)	Peru	Miami
Manalan, Maurice M.	Indianapolis	Marion
Manalo, Francisco S.	Gary	Lake
Manders, Karl L.	Indianapolis	Marion
Mangan, Frank P.	Gary	Lake
Manhart, Doyle B.	Sheridan	Hamilton
Manifold, Harold M.	Bloomington	Owen-Monroe
Manion, Marlow W.	Indianapolis	Marion
Mankin, William J.	Terre Haute	Vigo
Manley, Floyd	Hammond	Lake
Mann, Mortimer	Indianapolis	Marion
Mann, Richard E.	Parris Island, N. C.	Marion
Manner, Richard J.	Evansville	Vanderburgh
Manning, George C.	Fort Wayne	Allen
Manning, K. Randolph	Indianapolis	Marion
Mannion, Rodney A.	Michigan City	La Porte
Manship, Stanley S.	Paoli	Orange
Mansueto, Mario D.	Hammond	Lake
Manzie, Michael W.	Indianapolis	Marion
Maple, James B. (S)	Sullivan	Sullivan
Marchand, Edwin V.	Haubstadt	Gibson
Marchand, John H., Jr.	Henderson, Ky.	Vanderburgh
Marchant, Clarence H.	Bloomington	Owen-Monroe
Marcus, Emanuel	Hammond	Lake
Marcus, Morris C.	Gary	Lake
Maris, Lee J.	Attica	Fountain-Warren
Markle, Joseph G.	Hobart	Lake
Marks, George A.	Elkhart	Elkhart
Marks, Howard H.	Huntington	Huntington
Marks, Maurice I.	Indianapolis	Marion
Marks, Ora L.	East Chicago	Lake
Marks, Salvo P.	Hammond	Lake
Marquinez, Adoracion	East Chicago	Lake
Marquis, Gordon	South Bend	St. Joseph
Marr, Griffith	Columbus	Bartholomew-Brown
Marsh, Carl M.	Indianapolis	Marion
Marsh, Chester A. (S)	Los Angeles, Calif.	Henry
Marsh, George W.	Lafayette	Tippecanoe
Marsh, Myrle F.	Marion	Grant
Marshall, Albert L., Jr.	Indianapolis	Marion
Marshall, Caesar L.	Fort Wayne	Allen
Marshall, Cavins R. (S)	Indianapolis	Marion
Marshall, George L. (S)	Bourbon	Marshall
Marshall, Lloyd C. (S)	Mt. Summit	Henry
Marshall, Millard R.	Gary	Lake
Marshall, Thos. J. (S)	Charlestown	Clark
Marske, Robert L.	Michigan City	La Porte
Martin, Charles E. (S)	Lynn	Randolph
Martin, Charles F.	Mishawaka	St. Joseph
Martin, Floyd S.	Goshen	Elkhart
Martin, Guy	Seymour	Jackson-Jennings
Martin, Hugh E.	Indianapolis	Marion

Name	City	County
Martin, Joe M.	Lafayette	Tippecanoe
Martin, Loren H.	Indianapolis	Marion
Martin, Paul H.	Elkhart	Elkhart
Martin, Samuel W.	Corydon	Harrison-Crawford
Martinov, William E.	South Bend	St. Joseph
Martz, Bill L.	Indianapolis	Marion
Martz, Carl D.	Indianapolis	Marion
Marvel, Howard R.	Lafayette	Tippecanoe
Marvel, James A.	Evansville	Vanderburgh
Marvel, Robert J.	Indianapolis	Marion
Maschmeyer, Robert H.	Logansport	Cass
Mason, Bernard A.	South Bend	St. Joseph
Mason, Donald G.	Angola	Steuben
Mason, Earl J.	Chicago, Ill.	Lake
Mason, Everett E.	Evansville	Vanderburgh
Mason, John C.	Munster	Lake
Mason, Lester M.	Terre Haute	Vigo
Mason, Richard L.	Hammond	Lake
Massanari, Walter S.	Millersburg	Elkhart
Masters, John M.	Indianapolis	Marion
Masters, Robert J.	Indianapolis	Marion
Mastrangelo, M. J.	Fort Wayne	Allen
Mather, Charles R.	Lafayette	Tippecanoe
Mather, J. Winford	East Gary	Lake
Mather, Robert L.	Lafayette	Tippecanoe
Mathews, James R.	Evansville	Vanderburgh
Mathewson, Russell C.	Anderson	Madison
Mathys, Alfred (S)	Louisville, Ky.	Harrison-Crawford
Matthew, John R.	Westville	La Porte
Matthew, W. Burleigh	Indianapolis	Marion
Matthews, Bernard J.	Indianapolis	Marion
Matthews, William M.	Indianapolis	Marion
Mattmiller, Everette D.	Avilla	Noble
Mattox, Don M.	Terre Haute	Vigo
Matzen, Richard N.	Bluffton	Wells
Maurer, J. Frank	Brazil	Clay
Maurer, Robert M.	Brazil	Clay
Mauzy, Merritt C.	South Bend	St. Joseph
Maxam, B. T.	Indianapolis	Marion
Maxson, Roy V.	Evansville	Vanderburgh
May, George A.	Madison	Jefferson-Switzerland
May, Richard M.	Gary	Lake
May, William D.	New Albany	Floyd
Mayberry, Alton	Chapel Hill, N. C.	Vanderburgh
Mayfield, Clifford H. (S)	Reynolds	White
McAdams, Hugh B.	Lafayette	Tippecanoe
McAdams, Robert	Lafayette	Tippecanoe
McAleese, George B.	Terre Haute	Vigo
McAlpine, Richard J.	Indianapolis	Marion
McArdle, Edward G.	Fort Wayne	Allen
McAree, Francis E.	Indianapolis	Marion
McArt, Bruce A.	Elkhart	Elkhart
McAtee, Ott B.	Madison	Jefferson-Switzerland
McBride, James S.	Indianapolis	Marion
McBride, Noel S.	Terre Haute	Vigo
McCabe, James E. (S)	W. Lafayette	Benton
McCalla, Charles X.	Paoli	Orange
McCallister, John W.	Fort Wayne	Allen
McCallister, Larry L.	Muncie	Marion
McCallum, Donald C.	Indianapolis	Marion
McCallum, Joseph T. C. (S)	Indianapolis	Marion
McCallum, Robert N.	Columbia, S. C.	Marion
McCarthy, Jeremiah A.	Whiting	Lake
McCartney, Donald H.	Indianapolis	Marion
McCarty, Virgil	Princeton	Gibson
McClain, Edwin S.	Indianapolis	Marion
McClain, Marvin L.	Scottsburg	Scott
McClary, Charles W.	Long Beach, Calif.	Vanderburgh
McClelland, Donald C. (S)	Lafayette	Tippecanoe
McClelland, Harry N.	Alexandria	Madison
McClintock, James A.	Muncie	Delaware-Blackford
McClure, Clark	Knox	Starke
McClure, Glen	Sullivan	Sullivan
McClure, Morris E.	Union City	Randolph
McClure, Stanley E.	Monon	White
McClure, Warren N.	Kokomo	Howard
McConnell, William C.	Sunman	Ripley
McCool, Joseph H.	Evansville	Vanderburgh
McCord, Carl B. (S)	Veedersburg	Fountain-Warren
McCormack, Lloyd L.	Fremont	Steuben
McCormick, Charles O., Jr.	Indianapolis	Marion
McCormick, Hubert D. (S)	Vincennes	Knox
McCormack, Wilbur C.	Brazil	Clay
McCoy, George E.	Muncie	Delaware-Blackford
McCoy, Roy R.	Fort Wayne	Allen
McCraley, William J.	South Bend	St. Joseph
McCrea, Fred R.	Terre Haute	Vigo
McCullough, Henry G.	Columbus	Bartholomew-Brown
McCullough, James Y.	New Albany	Floyd
McDaniel, Franklin P. (S)	Atlanta	Hamilton
McDonald, Frank C.	New Castle	Henry
McDonald, Joseph D.	Evansville	Vanderburgh
McDonald, Ralph M.	South Bend	St. Joseph
McDonald, Virgil G. (S)	Anderson	Madison
McDowell, Fletcher W.	Muncie	Delaware-Blackford
McDowell, George A.	Fort Wayne	Allen
McDowell, Mordecai M.	Vincennes	Knox
McEachern, Cecil G.	Fort Wayne	Allen
McElroy, James S.	New Castle	Henry
McElroy, Robert S.	Princeton	Gibson
McEwen, James W.	Terre Haute	Vigo
McFadden, James M.	Lafayette	Tippecanoe
McFarland, Corley B.	South Bend	St. Joseph
McGee, Robert R.	Columbus, Nebr.	Henry
McGrath, Michael F.	Indianapolis	Marion
McGue, Frank J.	Michigan City	La Porte
McGuff, Paul E.	Indianapolis	Marion
McGuire, D. F. (S)	East Chicago	Lake
McIlroy, Richard J.	Richmond	Wayne-Union
McIlwain, Eleanor E.	Warren	Grant
McIlwain, Robert E.	Warren	Grant
McIndoo, Ralph E. (S)	Kokomo	Howard
McIntire, Clarence R.	Bloomington	Owen-Monroe
McIntosh, Wilbert	Riley	Vigo
McIntyre, Charles J. (S)	Indianapolis	Marion
McIntyre, James M.	Indianapolis	Marion
McKechnie, Robert K.	Jeffersonville	Clark
McKee, Harry G.	Rushville	Rush
McKee, Roy G.	New Castle	Henry
McKeeman, Donald H.	Fort Wayne	Allen
McKeeman, Leland S.	Fort Wayne	Allen
McKeon, Edward C.	Evansville	Vanderburgh
McKinley, A. David	Indianapolis	Marion
McKinley, Joseph	Lafayette	Tippecanoe
McKinney, Daniel H.	Lafayette	Tippecanoe
McKinney, Donald L.	Otterbein	Benton
McKittrick, Jack	Washington	Daviess-Martin
McLain, Clarence R., Jr.	Indianapolis	Marion
McLaren, Daniel E.	Indianapolis	Marion
McLaughlin, Calvin P.	Pendleton	Madison
McLaughlin, Gordon C.	Terre Haute	Vigo

Name	City	County
McLaughlin, James R.	Flora	Carroll
McLean, James S.	Munster	Lake
McMahan, Virgil C.	Vincennes	Knox
McMath, Samuel B.	Gary	Lake
McMeel, James	South Bend	St. Joseph
McMichael, Frank J. (S)	Hernando, Fla.	Lake
McMillan, Frederick G. (S)	Indianapolis	Marion
McNabb, George B.	Carthage	Rush
McNabb, Richard C.	Carthage	Rush
McNaughton, Lawrence	Washington	Daviess-Martin
McNeely, Matthew J.	Dillsboro	Dearborn-Ohio
McPherson, Thomas C.	Evansville	Vanderburgh
McQuiston, Ralph J.	Indianapolis	Marion
McTurnan, Robert W.	Indianapolis	Marion
McVey, Clarence A.	Hammond	Lake
McWilliams, William B.	Liberty	Wayne-Union
Mead, Clarence H. (S)	Bluffton	Wells
Mead, Frank E.	La Porte	La Porte
Mealey, John, Jr.	Indianapolis	Marion
Medcalf, Norman L. (S)	Lamar	Spencer
Megenhardt, Dennis S.	Indianapolis	Marion
Mehne, Richard G.	Brazil	Clay
Meier, Donald W.	Bluffton	Wells
Meikle, Louise J. (S)	W. Lafayette	Tippecanoe
Meiks, Lyman T.	Indianapolis	Marion
Meiser, Robert D.	Huntington	Huntington
Meissel, Robert	Terre Haute	Vigo
Meister, Doris (S)	Anderson	Madison
Melin, John R.	Indianapolis	Marion
Melloh, Ardis F.	Indianapolis	Marion
Mendelson, Stanley M.	Kokomo	Howard
Mendez, Carlos	Elkhart	Elkhart
Mensch, James R.	Fort Wayne	Allen
Mentendiek, Maurice H.	Indianapolis	Marion
Mercer, Samuel R.	Fort Wayne	Allen
Meredith, Elwood J.	Richmond	Wayne-Union
Mericle, Earl W.	Indianapolis	Marion
Merrell, Paul	Indianapolis	Marion
Mershon, Jack B.	Indianapolis	Marion
Mertz, Henry O. (S)	Nokomis, Fla.	Marion
Mertz, John H. O.	Indianapolis	Marion
Messer, Frank W.	Kendallville	Noble
Metcalfe, Grant E.	South Bend	St. Joseph
Meyer, Claude J.	Jeffersonville	Clark
Meyer, Hans	Westville	La Porte
Meyer, Herman A.	Fort Wayne	Allen
Meyer, Theodore O.	Fort Wayne	Allen
Meyn, Werner P.	Terre Haute	Vigo
Michael, Isaac E.	Indianapolis	Marion
Michael, Robert L.	Kokomo	Howard
Michaelis, Stephen C.	Fort Wayne	Allen
Middleton, Harvey N.	Indianapolis	Marion
Middleton, Ramona J.	Elkhart	Elkhart
Middleton, Thomas O	Bloomington	Owen-Monroe
Miklozek, John E.	Terre Haute	Vigo
Milan, Joseph F.	Bloomington	Owen-Monroe
Milan, Shisachki D.	East Chicago	Lake
Miller, Albert J.	Lafayette	Tippecanoe
Miller, Arthur H. (S)	Russiaville	Howard
Miller, Dan T. (S)	Fowler	Benton
Miller, Donald C.	Cedar Lake	Lake
Miller, Donald G.	Middlebury	Elkhart
Miller, Edward D.	Fort Wayne	Allen
Miller, Frank H.	Indianapolis	Marion
Miller, Galen R.	Elkhart	Elkhart
Miller, H. Allison	Marion	Grant
Miller, H. Paul	Fort Wayne	Allen
Miller, Harold E.	Seymour	Jackson-Jennings
Miller, Harold L.	Richmond	Wayne-Union
Miller, Hugh A.	Elkhart	Elkhart
Miller, James C.	Greensburg	Decatur
Miller, Jerry A.	LaGrange	LaGrange
Miller, Jerry R.	Indianapolis	Marion
Miller, John D.	Indianapolis	Marion
Miller, John M.	Indianapolis	Marion
Miller, John M.	Bloomington	Owen-Monroe
Miller, Joseph A.	Oaklandon	Hancock
Miller, Kenneth D.	Woodburn	Allen
Miller, LaVerne B.	Evansville	Vanderburgh
Miller, Mahlon F.	Fort Wayne	Allen
Miller, Maurice	Michigan City	La Porte
Miller, Milton J.	Evansville	Vanderburgh
Miller, Milo K. (S)	South Bend	St. Joseph
Miller, Orval J.	Fort Wayne	Allen
Miller, Raleigh S.	Indianapolis	Marion
Miller, Ray D.	Martinsville	Morgan
Miller, Richard C.	Shelbyville	Shelby
Miller, Richard H.	Fort Wayne	Allen
Miller, Robert B.	Fort Wayne	Allen
Miller, Robert J.	Paragon	Morgan
Miller, Roland E.	Lafayette	Tippecanoe
Miller, Roscoe E.	Indianapolis	Marion
Miller, Samuel T. (S)	Elkhart	Elkhart
Miller, Virgil C.	Akron	Fulton
Miller, Wayne S.	Flint, Mich.	Huntington
Miller, William A.	Hagerstown	Henry
Miller, William J.	Fort Wayne	Allen
Milleson, Ann L. M.	Terre Haute	Vigo
Millis, Arthur B.	Richmond	Wayne-Union
Millis, Samuel C.	Crawfordsville	Montgomery
Mills, Fred E.	Evansville	Vanderburgh
Mills, John F.	Wabash	Wabash
Milne, Walter S.	Michigan City	La Porte
Milos, Robert J.	Gary	Lake
Milroy, Robert A.	Bluffton	Wells
Minczewski, Richard C.	Gary	Lake
Minich, William G.	Newport	Parke-Vermillion
Minick, Linus J.	Churubusco	Whitley
Mininger, Edward P.	Elkhart	Elkhart
Mino, Robert A.	Evansville	Vanderburgh
Mintz, Alfred M.	Hammond	Lake
Mirro, John A.	Lowell	Lake
Misch, William	Cedar Lake	Lake
Mishkin, Irving	Elkhart	Elkhart
Mishler, Joe B.	Pierceton	Whitley
Mitchell, George H.	Indianapolis	Marion
Mitchell, George L. (S)	Smithville	Owen-Monroe
Mitchell, Georgia B.	Gary	Lake
Mitman, Floyd B.	Huntington	Huntington
Mittleman, Edwin J.	Ashley	Steuben
Moak, Glenn D.	Indianapolis	Marion
Moats, Carl F.	Fort Wayne	Allen
Moats, George E. (S)	Fort Wayne	Allen
Mock, Harry E., Jr.	Franklin	Johnson
Modisett, Jackson W.	Madison	Jefferson-Switzerland
Modisett, Marcella S.	Madison	Jefferson-Switzerland
Modjeski, Joseph R.	Hammond	Lake
Moehlenkamp, Chas. E.	Evansville	Vanderburgh
Moeller, Victor C.	Fort Wayne	Allen
Moenning John E.	Indianapolis	Marion
Moheban, Joseph	Shelbyville	Shelby
Mohler, Floyd W.	Columbus	Bartholomew-Brown
Molengraft, Cornelius J.	Gary	Lake
Molloy, William J. (S)	Muncie	Delaware-Blackford
Monar, Michael	Rockport	Spencer
Moneyhun, James E.	Anderson	Madison
Monroe, F. Bruce	Crown Point	Lake
Montes, Herminio Y.	Hammond	Lake
Montgomery, Lall G.	Muncie	Delaware-Blackford
Montgomery, Ralph F.	Indianapolis	Marion
Montgomery, Samuel B. (S)	Cynthiana	Posey
Montgomery, William F.	Indianapolis	Marion
Moon, Charles E.	Center Point	Clay
Moore, Donald F.	Indianapolis	Marion
Moore, Edwin G.	Gary	Lake

Name	City	County
Moore, Elwin J.	Glendale, Calif.	Marion
Moore, Harold T.	Indianapolis	Marion
Moore, Martha	Madison	Jefferson-Switzerland
Moore, Richard B.	St. Paul, Minn.	Marion
Moore, Robert G.	Vincennes	Knox
Moore, Thomas C.	Muncie	Delaware-Blackford
Moore, Will C. (S)	Muncie	Delaware-Blackford
Moore, William G.	Ft. Hood, Texas	Marion
Moosey, Louis	Union Mills	La Porte
Moran, Mark M. (S)	Portland	Jay
Moravec, Arthur E.	Fort Wayne	Allen
Morchan, Samuel	Indianapolis	Marion
Morey, Edwin E.	Fort Wayne	Allen
Morgan, Margaret E.	Indianapolis	Marion
Moriarty, John R.	Indianapolis	Marion
Morrical, Russell J.	Logansport	Cass
Morris, Hyman R.	Gary	Lake
Morris, Jean W.	Muncie	Delaware-Blackford
Morris, Robert A.	Anderson	Madison
Morris, Warren V.	Monticello	White
Morrison, George G.	Portland	Jay
Morrison, George G., Jr.	Lawrenceburg	Dearborn-Ohio
Morrison, James T.	Greensburg	Decatur
Morrison, Lewis E.	Indianapolis	Marion
Morrison, William R. (S)	Kokomo	Howard
Morrow, Dean H.	Bethesda, Md.	Marion
Morrow, Robert J.	Bedford	Lawrence
Mortenson, Leland J.	Fort Wayne	Allen
Morton, David P.	Westville	La Porte
Morton, Joseph L.	Indianapolis	Marion
Morton, Walter P.	Indianapolis	Marion
Moser, Elmer B. (S)	Windfall	Tipton
Moser, Edward (S)	Woodburn	Allen
Moser, Rollin H.	Indianapolis	Marion
Moses, George E.	Worthington	Greene
Moses, Robert E.	Worthington	Greene
Moss, Bobby L.	Indianapolis	Marion
Moss, Harlan B.	Indianapolis	Marion
Moss, Herschel C.	Indianapolis	Marion
Moss, Mavor J.	Yorktown	Delaware-Blackford
Moswin, Jack A.	Gary	Lake
Mothersill, Mark H. (S)	Indianapolis	Marion
Mott, Cassell A.	South Bend	St. Joseph
Mott, William H.	Gary	Lake
Moulton, Lillian G.	Evansville	Vanderburgh
Mount, Mathias S.	Bloomfield	Greene
Mount, William M.	Lafayette	Tippecanoe
Mountain, Francis B.	Connersville	Fayette-Franklin
Mouser, Robert W.	Indianapolis	Marion
Mudd, Joseph P.	Clarksville	Clark
Muelchi, Adeline F.	Evansville	Vanderburgh
Mullen, James B.	Indianapolis	Marion
Mueller, Edwin C.	LaPorte	LaPorte
Mueller, Hilbert M.	South Bend	St. Joseph
Mueller, Lawrence W.	Fort Wayne	Allen
Muhleman, Charles E.	La Porte	La Porte
Muller, Lullus P.	Indianapolis	Marion
Muller, Paul F.	Indianapolis	Marion
Muller, Victor H.	Indianapolis	Marion
Murdock, Harvey L. (S)	Fort Wayne	Allen
Murphy, Edward U.	Evansville	Vanderburgh
Murphy, Eugene C.	South Bend	St. Joseph
Murphy, Joseph F.	Lansing, Ill.	Lake
Murphy, Josephine F.	South Bend	St. Joseph
Murphy, Maurice G. (S)	Morgantown	Morgan
Murray, Ernest C.	Kokomo	Howard
Murray, James S.	Camarillo, Calif.	Marion
Murray, William E.	New Castle	Henry
Musselman, Glen G.	Terre Haute	Vigo
Musser, A. Wendell	Ft. Bragg, N. C.	Marion
Myers, Charles W. (S)	Indianapolis	Marion
Myers, Philip R.	South Bend	St. Joseph
Myers, Roy V.	Indianapolis	Marion

N

Nagan, Robert F.	Indianapolis	Marion
Nash, Justin R.	Albion	Noble
Nason, Robert A.	Garrett	De Kalb
Navin, Hugh K.	Fortville	Hancock
Navarre, Vincent J.	Munster	Lake
Nay, Ernest O.	Terre Haute	Vigo
Nay, Richard M.	Indianapolis	Marion
Neal, Leonard W.	Hammond	Lake
Neale, Alfred E.	Anderson	Madison
Nedelkoff, Bogdan	New Albany	Floyd
Need, Louis T.	Indianapolis	Marion
Need, Richard L.	Indianapolis	Marion
Neher, John L.	South Bend	St. Joseph
Neidballa, Edward G.	Bristol	Elkhart
Neifert, Noel L.	Tell City	Perry
Nelson, Audrey H.	Morgantown, W. Va.	Marion
Nelson, Carl A.	West Lebanon	Fountain-Warren
Nelson, Dudley	Chandler	Warrick
Nelson, F. Dale	South Bend	St. Joseph
Nelson, Harold E.	Muncie	Delaware-Blackford
Nelson, John W.	Morgantown, W. Va.	Marion
Nelson, Raymond E.	South Bend	St. Joseph
Nelson, Walfred A.	Gary	Lake
Nenneker, Henry (S)	Evansville	Vanderburgh
Nesbit, Leonard L.	Anderson	Madison
Nester, Henry G.	Indianapolis	Marion
Netherton, Clyde R. (S)	Chalmers	Tippecanoe
Neudorff, Louis G.	Terre Haute	Vigo
Neukamp, Frank H.	Connersville	Fayette-Franklin
Neumann, Kenneth O.	Lafayette	Tippecanoe
Newby, Eugene	Sheridan	Hamilton
Newcomb, William K.	Royal Center	Cass
Newland, Arthur E.	Bedford	Lawrence
Newman, Alvin E.	Ft. Lauderdale, Fla.	Vanderburgh
Newman, Daniel M.	Indianapolis	Marion
Newnum, Raymond L.	Evansville	Vanderburgh
Newsome, C. K.	Evansville	Vanderburgh
Niccum, Warren L.	Columbia City	Whitley
Nicholas, Dennis J.	Indianapolis	Marion
Nichols, Anne Sackett	Greencastle	Putnam
Nichols, Robert J.	Vincennes	Knox
Nicholson, Raymond W.	Evansville	Vanderburgh
Nicosia, John B.	East Chicago	Lake
Nie, Louis W.	Indianapolis	Marion
Niedermayer, Alfred J.	Evansville	Vanderburgh
Nigh, Rufus M.	Fairland	Shelby
Nill, John H.	Fort Wayne	Allen
Nixon, Byron	Farmland	Randolph
Noblitt, James S. (S)	Rockville	Parke-Vermillion
Nodinger, Louis	Hammond	Lake
Noe, William R.	Bedford	Lawrence
Nohl, John M.	Indianapolis	Marion
Nolan, Gerald R.	Fort Wayne	Allen
Nolin, Richard T.	Indianapolis	Marion
Nolt, Ernest V. (S)	Columbia City	Whitley
Nolting, Henry F. (S)	Indianapolis	Marion
Nonte, Leo R.	Evansville	Vanderburgh
Noonan, Leo C.	Portage	Lake
Norman, William H.	Indianapolis	Marion

Name	City	County
Norris, Allen A. (S)	Elkhart	Elkhart
Norris, Ernest B.	Culver	Marshall
Norris, Marvin G.	Rushville	Rush
Norris, Max S.	Indianapolis	Marion
Norton, Harold J.	Columbus	Bartholomew-Brown
Norton, Horace O.	Washington	Daviess-Martin
Nourse, Myron H.	Indianapolis	Marion
Noveroske, Richard J.	Indianapolis	Marion
Novy, Charles A.	Garrett	De Kalb
Nugen, Harold	Auburn	De Kalb
Nugent, Edwin J.	Indianapolis	Marion
Nurnberger, John I.	Indianapolis	Marion
Nutter, Wyndham H.	Rushville	Rush

O

Oak, David D., Sr. (S)	LaCrosse	La Porte
Oak, David D., Jr.	Hanna	La Porte
Oberlander, Seymour	Gary	Lake
O'Brian, Earl J.	Indianapolis	Marion
O'Brian, John F.	Fort Wayne	Allen
O'Brien, Francis E.	Rensselaer	Jasper-Newton
O'Brien, Raymond J.	Michigan City	La Porte
O'Bryan, Richard B.	Columbus	Bartholomew-Brown
Ochsner, Harold C.	Indianapolis	Marion
Ockerman, Kenneth R.	Rensselaer	Jasper-Newton
Offutt, Andrew C.	Indianapolis	Marion
Olcott, Charles W.	Aurora	Dearborn-Ohio
Oldag, George E.	Elwood	Madison
Oliphant, Frank W.	Mount Vernon	Posey
Oliphant, Wilmer G.	Terre Haute	Vigo
Olivio, Marciano T.	Gary	Kosciusko
Olson, Donald T.	South Bend	St. Joseph
Olson, Kenneth L.	South Bend	St. Joseph
Olson, Leslie D.	Gary	Lake
Olvey, Ottis N.	Indianapolis	Marion
Omstead, Milton	Petersburg	Pike
Omstead, Trevalyn W.	Huntington	Huntington
O'Neill, Martin J.	Valparaiso	Porter
Onorato, Joseph J.	Lafayette	Tippecanoe
Onyett, Harold R.	Greenwood	Johnson
Orders, Clarke E. (S)	Indianapolis	Marion
Oren, William F.	South Bend	St. Joseph
Ormiston, Michael W.	Long Beach, Calif.	Marion
Ornelas, Joseph P.	Gary	Lake
O'Rourke, Carroll	Fort Wayne	Allen
Orr, W. Robert	South Bend	St. Joseph
Oster, Jack H.	Westville	La Porte
Ostheimer, George	Martinsville	Morgan
Oswald, Robert H.	Evansville	Vanderburgh
Oswalt, James T.	Mitchell	Lawrence
Otten, Claude F.	Indianapolis	Marion
Otten, Ralph E.	Darlington	Montgomery
Ouaidat, Mounib	Bluffton	Wells
Overley, Ross A.	Indianapolis	Marion
Overley, Toner M., Jr.	Indianapolis	Marion
Overpeck, Charles	Greensburg	Decatur
Overpeck, George H.	Alexandria	Madison
Overshiner, Lyman (S)	Columbus	Bartholomew-Brown
Owen, John E.	Indianapolis	Marion
Owen, Margaret T.	Bloomington	Owen-Monroe
Owen, Thomas F.	Alexandria	Madison
Owens, Thomas R. (S)	Muncie	Delaware-Blackford
Owens, Tracy C.	Indianapolis	Marion
Owsley, Guy A.	Hartford City	Delaware-Blackford
Oyer, John H.	Fort Wayne	Allen

P

Paff, William A.	Elkhart	Elkhart
Pagedas, Tom C.	Indianapolis	Marion
Paine, George E.	Elkhart	Elkhart
Painter, Donald S.	Fort Wayne	Allen
Painter, Lowell W.	Winchester	Randolph
Palmer, Barron M. F.	Hammond	Lake
Palmer, Charman F.	Indianapolis	Marion
Palmer, Harley P.	Indianapolis	Marion
Palmer, Paul E.	Indianapolis	Marion
Palmer, Robert M.	Indianapolis	Marion
Palmer, Robert W.	Indianapolis	Marion
Panares, Solomon V.	Hammond	Lake
Pancost, Vernon K.	Elkhart	Elkhart
Pandolfo, Harry	Indianapolis	Marion
Panos, Constantine O.	Bluffton	Wells
Pappas, Eddie T.	Gary	Lake
Paras, Jose L.	Rising Sun	Dearborn-Ohio
Paris, Durward W.	Kokomo	Howard
Paris, John M.	New Albany	Floyd
Park, Byron J.	Richmond	Wayne-Union
Parker, Carey B.	Fort Wayne	Allen
Parker, Carl B.	Wingate	Montgomery
Parker, E. Camille	Logansport	Cass
Parker, Francis W., Jr.	Logansport	Cass
Parker, George F., Jr.	Indianapolis	Marion
Parker, Harry C. (S)	Hobart	Lake
Parker, John B.	Versailles	Ripley
Parker, John C.	Goodland	Jasper-Newton
Parker, John F.	Indianapolis	Marion
Parker, Portia	Indianapolis	Marion
Parks, George O.	Hartford City	Delaware-Blackford
Parks, Herbert E.	Houston, Texas	Marion
Parmenter, Harry B.	Vincennes	Knox
Parr, Robert L.	Indianapolis	Marion
Parratt, Louis W.	Gary	Lake
Parrish, Richard K.	Decatur	Adams
Parrot, Donald J.	Fort Wayne	Allen
Parshall, Dale B.	Elkhart	Elkhart
Parsons, Robert L.	South Bend	St. Joseph
Pascuzzi, Chris A.	South Bend	St. Joseph
Paskind, Jacob	Indianapolis	Marion
Passino, James	Richmond	Wayne-Union
Pastor, Julius W.	Evansville	Vanderburgh
Patrick, Glenn B.	Elkhart	Elkhart
Patterson, William K.	Anderson	Madison
Pattison, John D.	Marion	Grant
Paul, Eudell G.	Munster	Lake
Paul, Leonard G.	Michigan City	La Porte
Pauly, Leonard R.	Fort Wayne	Allen
Paulissen, George T.	Indianapolis	Marion
Pauszek, Thomas B.	South Bend	St. Joseph
Pavlick, Theodore J.	Evansville	Vanderburgh
Payne, Arthur C.	East Chicago	Lake
Paynter, Morris B.	Southport	Marion
Paynter, William	Pekin	Washington
Paz, Luis	Shelbyville	Shelby
Peacock, Norman F.	Crawfordsville	Montgomery
Peacock, Robert C.	Muncie	Delaware-Blackford
Pearce, Roy V.	Terre Haute	Vigo
Pearcy, Marcene	Marion	Grant
Peare, Reeve B.	Huntington	Huntington
Pearlman, Samuel S. (S)	Lafayette	Tippecanoe
Pearson, Huey L.	Fort Wayne	Allen
Pearson, John S.	Indianapolis	Marion

Name	City	County
Pearson, Lyman R.	Clearwater, Fla.	Marion
Pearson, William E.	Wabash	Wabash
Pebworth, Aubrey C. (S)	Indianapolis	Marion
Peck, Edward A.	Hammond	Lake
Peck, Franklin B., Jr.	Indianapolis	Marion
Peck, Franklin B., Sr.	Monticello	Marion
Peck, James F.	Princeton	Gibson
Peiffer, Geraldine M.	Hammond	Lake
Peirce, James D.	Indianapolis	Marion
Pemberton, Jack J.	Evansville	Vanderburgh
Penn, Robert A.	East Gary	Lake
Pentecost, Paul S.	Richmond	Wayne-Union
Perdomo, Octavio J.	East Chicago	Lake
Perkins, Powell L.	Kokomo	Howard
Perlov, Sylvan H.	Indianapolis	Marion
Permer, Erwin	Indianapolis	Marion
Perrin, Kermit F.	Fort Wayne	Allen
Perry, Frederic G.	Fort Wayne	Allen
Person, Theodore C.	Veedersburg	Fountain-Warren
Peters, Elmer E.	Brookville	Fayette-Franklin
Peterson, Deward D.	Indianapolis	Marion
Peterson, Joel A.	West Lafayette	Tippecanoe
Peterson, Roland L.	Plymouth	Marshall
Petitjean, Harold G.	Haubstadt	Gibson
Petranoff, Theodore V. (S)	Indianapolis	Marion
Petrass, Andrew (S)	South Bend	St. Joseph
Petrich, Peter R.	Attica	Fountain-Warren
Petry, T. Neal	Delphi	Carroll
Pettijohn, Fred L. (S)	Indianapolis	Marion
Peyton, Frank W.	Lafayette	Tippecanoe
Pfaff, Dudley A.	Indianapolis	Marion
Pfeifer, James M.	Lawrenceburg	Dearborn-Ohio
Pfuetze, Max	Logansport	Cass
Phares, Robert W.	Kokomo	Howard
Phelps, Stephen R.	South Bend	St. Joseph
Phelps, William J.	Fort Wayne	Allen
Philbert, Richard N.	Daly City, Calif.	Allen
Philbrook, Seth S.	La Porte	La Porte
Phillips, David L.	Indianapolis	Marion
Phillips, John F.	Bluffton	Wells
Phillips, John H.	Michigan City	LaPorte
Phipps, Elwood B.	Logansport	Cass
Phipps, Leland K.	Union City	Randolph
Pickett, Merle E.	Fort Wayne	Allen
Pickett, Robert D.	Indianapolis	Marion
Pierce, Emmett, Jr.	Indianapolis	Marion
Pierce, Fredrick H.	Anderson	Madison
Pierce, Gene S.	New Albany	Floyd
Pierson, Pearl H.	Silver Lake	Kosciusko
Pierson, Robert H.	Crawfordsville	Montgomery
Pierson, Thomas A.	New Palestine	Hancock
Pietz, David G.	Bluffton	Wells
Pike, Warren H.	Hobart	Lake
Pilcher, Jack E.	Indianapolis	Marion
Pilecki, Peter J.	Michigan City	La Porte
Pilot, Jean	Hammond	Lake
Pippenger, Joseph I.	Muncie	Delaware-Blackford
Pippenger, Wayne G.	Muncie	Delaware-Blackford
Pirkle, Hubert B.	Rockville	Parke-Vermillion
Pitkin, McKendree C.	Martinsville	Morgan
Pittman, John N.	Indianapolis	Marion
Pizzo, Anthony	Bloomington	Owen-Monroe
Plain, George	South Bend	St. Joseph
Plank, C. Robert	Michigan City	La Porte
Plasterer, Edward D.	Richmond	Wayne-Union
Platis, James M.	Indianapolis	Marion
Ploetner, Edward J.	Jasper	Dubois
Ploughe, Ralph R.	Elwood	Madison
Polhemus, Warren C.	Anderson	Madison
Polite, Nicholas L.	Whiting	Lake
Pollard, Walter S. (S)	Evansville	Vanderburgh
Pontius, Edwin E.	Indianapolis	Marion
Ponczek, Edward J.	Fort Wayne	Allen
Poolitsan, George C.	Bloomington	Owen-Monroe
Popp, Milton F.	Fort Wayne	Allen
Popplewell, Arvine G.	Indianapolis	Marion
Poracky, Bernard F.	Gary	Lake
Porro, Francis W.	Evansville	Vanderburgh
Porter, Carl M.	Jasonville	Greene
Porter, Edward A. (S)	Westport	Decatur
Porter, George S.	Richmond	Wayne-Union
Porter, Jack	Lebanon	Boone
Porter, Robert A.	Westport	Decatur
Portney, Fred R.	Munster	Lake
Portteus, Walter L.	Franklin	Johnson
Poston, Clement L.	Laurel	Fayette-Franklin
Potter, Richard M.	Ridgeville	Randolph
Potts, Robert E.	New Albany	Floyd
Powell, J. Paxton	Marion	Grant
Powell, M. Jack	Fort Wayne	Allen
Powell, Richard C.	Indianapolis	Marion
Prather, Philip E.	Kokomo	Howard
Pratt, Ralph M., Jr.	Madison	Jefferson-Switzerland
Predd, Adolph C.	La Porte	La Porte
Premuda, Franklin F.	Hammond	Lake
Prenatt, Francis	Madison	Jefferson-Switzerland
Prentiss, Nelson H.	Oteen, N. C.	Allen
Present, Julian	Evansville	Vanderburgh
Pribble, Robert H.	Indianapolis	Marion
Price, Ambrose M.	Marion	Grant
Price, Douglas W.	Nappanee	Elkhart
Price, Francis W.	Indianapolis	Marion
Price, James O.	Indianapolis	Marion
Price, Shirley G.	Evansville	Vanderburgh
Priddy, Marvin E.	Fort Wayne	Allen
Priebe, Fred H.	Indianapolis	Montgomery
Proudfit, Charles H.	South Bend	St. Joseph
Province, Oran A.	Franklin	Johnson
Province, William D.	Franklin	Johnson
Pruitt, J. Edward	Gary	Lake
Pryor, Richard C.	Indianapolis	Marion
Pu, Pin H.	Terre Haute	Vigo
Pugh, Willis L.	Evansville	Vanderburgh
Pulskamp, Bertrand H.	Wolcottville	Noble
Purcell, Richard J.	Griffith	Lake
Puterbaugh, Karl E.	Albany	Delaware-Blackford
Pyle, Harold D.	South Bend	St. Joseph
Q		
Quarles, E. Bryan	Bloomington	Owen-Monroe
Quiambao, Hector S.	Attica	Fountain-Warren
Quick, William J.	Muncie	Delaware-Blackford
Quickel, Daniel S. (S)	Anderson	Madison
Quigley, Joseph B.	Indianapolis	Marion
Quilty, Thomas J.	Goshen	Elkhart
R		
Rabb, Aaron	Indianapolis	Marion
Rabb, Frank M.	Indianapolis	Marion
Rabb, Harry S.	Indianapolis	Marion
Raber, Robert M.	Indianapolis	Marion
Rabushka, Sanford	Terre Haute	Vigo
Rader, George S.	Indianapolis	Marion
Radigan, Leo R.	Gary	Lake
Radziewicz, Arthur R.	Newburgh	Warrick
Rafalski, Thomas A.	Indianapolis	Marion

Name	City	County
Ragan, William D.	Indianapolis	Marion
Ralston, John D.	Indianapolis	Marion
Ramage, Walter F.	Beech Grove	Marion
Ramey, John W. (S)	Kokomo	Howard
Ramker, Daniel T.	Hammond	Lake
Ramos, Alfonso	Gary	Lake
Ramos, John	East Chicago	Lake
Ramsdell, Glen A.	Richmond	Wayne-Union
Ramsey, Frank B.	Indianapolis	Marion
Ramsey, Hugh S.	Bloomington	Owen-Monroe
Ranck, Benjamin	Columbus	Bartholomew-Brown
Raney, Ben B.	Linton	Greene
Rang, A. A. (S)	Washington	Daviess-Martin
Rang, Robert H.	Washington	Daviess-Martin
Rapp, George F.	Indianapolis	Marion
Rasch, George C., Jr.	Hammond	Lake
Rasmussen, Ruth F.	South Bend	St. Joseph
Ratcliff, Frank W.	Lafayette	Tippecanoe
Ratcliffe, Albert W.	Evansville	Vanderburgh
Rau, Charles A.	Columbus	Bartholomew-Brown
Rauh, Robert A.	Wabash	Wabash
Rausch, Norman W.	Angola	Steuben
Rawlins, Carolyn M.	Hammond	Lake
Rawls, George H.	Indianapolis	Marion
Ray, Carl S.	Warren	Huntington
Ray, Herbert A. (S)	Fort Wayne	Allen
Raymundo, Vivencio F.	Attica	Fountain-Warren
Rea, Ralph L.	Hyattsville, Md.	Marion
Read, John E.	Chesterton	Porter
Reck, John L. (S)	Sheridan	Hamilton
Records, Arthur W.	Franklin	Johnson
Records, John M.	Indianapolis	Marion
Reed, Donald W.	Culver	Marshall
Reed, Edsel S.	Jeffersonville	Clark
Reed, Edgar A.	Warsaw	Kosciusko
Reed, John	Hobart	Lake
Reed, John D.	Fort Wayne	Allen
Reed, Nelle C. (S)	Michigan City	La Porte
Reed, Philip B.	Indianapolis	Marion
Reed, Robert C.	Terre Haute	Vigo
Reed, Robert F.	Mishawaka	St. Joseph
Reed, Robert G., Jr.	Plymouth	Marshall
Reed, Roger R.	Anderson	Madison
Reed, William C.	Bloomington	Owen-Monroe
Reeder, Henry H.	Jeffersonville	Clark
Rees, Russel C.	Indianapolis	Marion
Reese, Jay S.	Martinsville	Marion
Regan, George L.	Sellersburg	Clark
Reibel, Donald B.	New York, N. Y.	Marion
Reich, Clarence E.	Evansville	Vanderburgh
Reid, Charles A.	Indianapolis	Marion
Reid, Donald B.	Columbia City	Whitley
Reid, James D.	Marion	Grant
Reid, Robert M.	Columbus	Bartholomew-Brown
Reid, Robert W. (S)	Union City	Randolph
Reilly, Eva Ferro	Beech Grove	Marion
Reilly, James F.	Vincennes	Knox
Reilly, Richard W.	Crete, Ill.	Lake
Reisler, Simon (S)	Indianapolis	Marion
Reitman, Paul H.	East Chicago	Lake
Remich, Antone C.	Hammond	Lake
Renbarger, Lester L.	Marion	Grant
Rendel, Donald T.	Hammond	Lake
Rendel, Harold E.	Mexico	Miami
Reno, Edward C.	Plymouth	Marshall
Repay, Walter A.	Hammond	Lake
Reppert, Roland L.	Decatur	Adams
Ress, Gene E.	Tell City	Perry
Reuter, John W.	Indianapolis	Marion
Reynolds, James S.	Gary	Lake
Reynolds, Ralph E.	Middletown	Madison
Reynolds, Richard J.	Terre Haute	Vigo
Rhamy, Arthur P.	Marion	Grant
Rhamy, Donald E.	Marion	Grant
Rhamy, Robert K.	Indianapolis	Marion
Rheinheimer, Floyd L.	Milford	Elkhart
Rhind, Alexander W.	Hammond	Lake
Rhodes, Theodore D.	Nokomis, Fla.	Marion
Rhorer, Herbert M. (S)	Kokomo	Howard
Rhorer, John G.	Marion	Grant
Rhynearson, Hal R.	Fortville	Hancock
Rice, Frederic A.	Indianapolis	Marion
Rice, Raymond M.	Indianapolis	Marion
Rich, Norval	Decatur	Adams
Richard, Norman F.	Shelbyville	Shelby
Richards, Edgar E.	Russellville	Montgomery
Richardson, Charles L.	Rochester	Fulton
Richardson, Joseph D.	Rochester	Fulton
Richardson, Joseph H.	Marion	Grant
Richardson, Thad T.	Indianapolis	Marion
Richart, James V.	Terre Haute	Vigo
Richer, Orville H.	Warsaw	Kosciusko
Richmond, Harold W.	Columbus	Bartholomew-Brown
Richter, Arthur B.	Indianapolis	Marion
Richter, John C.	La Porte	La Porte
Richter, Samuel	Gary	Lake
Ricketts, Joseph W. (S).	Orman Beach, Fla.	Marion
Ridgeway, Ora W. (S)	Indianapolis	Marion
Ridgway, Alton H.	Lapel	Madison
Ridolfo, Anthony S.	Indianapolis	Marion
Rieger, I. Taylor	Bloomington	Owen-Monroe
Rietman, H. Jerome	Evansville	Vanderburgh
Rifner, Eugene S.	Van Buren	Grant
Rigg, John F.	Miami Shores, Fla.	Marion
Riggs, Floyd C.	Terre Haute	Vigo
Rigley, Edward L.	South Bend	St. Joseph
Riley, H. S.	Madison	Jefferson-Switzerland
Rimel, James F.	Plymouth	Marshall
Riner, Jack K.	Indianapolis	Marion
Rinne, John I. (S)	Lapel	Madison
Riordan, John F.	Gary	Lake
Ripley, John W.	Seymour	Jackson-Jennings
Rissing, Walter J.	Fort Wayne	Allen
Ritchey, James O. (S)	Indianapolis	Marion
Ritchie, William D.	Evansville	Vanderburgh
Rittelmeyer, Louis F., Jr.	Evansville	Vanderburgh
Ritteman, George W.	Franklin	Johnson
Ritter, Wayne L.	Indianapolis	Marion
Ritz, Albert S.	Evansville	Vanderburgh
Rivers, Glynn A.	Muncie	Delaware-Blackford
Robb, John A.	Indianapolis	Marion
Roberts, Billy J.	South Bend	St. Joseph
Robertson, Addis N.	New Albany	Floyd
Robertson, David W. (S)	Deputy	Jefferson-Switzerland
Robertson, James S.	Plymouth	Marshall
Robertson, Ray B.	Indianapolis	Marion
Robertson, William C.	Chesterton	Porter
Robertson, William S.	Spiceland	Henry
Robinson, Earle U.	Evansville	Vanderburgh
Robinson, Frank C. (S)	Newport Beach, Calif.	Marion
Robinson, Nan	New Albany	Floyd
Robinson, Walter K.	Gary	Lake
Robinson, William H.	Mitchell	Lawrence

Name	City	County
Roby, Alma L.	Jeffersonville	Clark
Rochlin, Isidore	Indianapolis	Marion
Rockey, Noah A. (S)	Fort Wayne	Allen
Rodin, Herman H.	South Bend	St. Joseph
Rodriguez, Cecilio	New York, N. Y.	Lake
Roesch, Ryland	Indianapolis	Marion
Roeske, Nancy A.	Indianapolis	Marion
Rogers, Donald L.	Indianapolis	Marion
Rogers, Evered E.	Auburn	De Kalb
Rogers, Otto F.	Bloomington	Owen-Monroe
Rogers, R. Shirrell	West Terre Haute	Vigo
Rogers, Thomas P.	La Jolla, Calif.	Marion
Rohn, Robert J.	Indianapolis	Marion
Rohrer, Bryce B.	Walkerton	La Porte
Rohrer, James R.	Elnora	Daviess-Martin
Roll, John W.	Indianapolis	Marion
Roll, William A.	Marion	Grant
Roller, Charles W. (S)	Indianapolis	Marion
Rollins, Thomas K.	Bloomington	Owen-Monroe
Romberger, Floyd T., Jr.	Indianapolis	Marion
Romero, Plinio	East Chicago	Lake
Rommel, Clarence H.	W. Lafayette	Tippecanoe
Roose, Lisle W.	Nappanee	Elkhart
Ropp, Eldon R.	Oakland City	Gibson
Ropp, Harold E.	New Harmony	Posey
Rosenak, Bernard D.	Indianapolis	Marion
Rosenbaum, Irving, Jr.	Indianapolis	Marion
Rosenbaum, Lloyd E.	Anderson	Madison
Rosenberg, Gabriel J.	Indianapolis	Marion
Rosenblatt, Bernard B.	Evansville	Vanderburgh
Rosenbloom, Philip J.	Gary	Lake
Rosenheimer, George M.	South Bend	St. Joseph
Rosenthal, Carl	Hammond	Lake
Rosenwasser, Jacob	Mishawaka	St. Joseph
Roser, Arthur J.	Fort Wayne	Allen
Rosevear, Henry J.	Hammond	Lake
Ross, Alexander T.	Indianapolis	Marion
Ross, Ben R.	Bloomington	Owen-Monroe
Ross, David E., Jr.	Gary	Lake
Ross, Glenn E.	Washington	Daviess-Martin
Ross, Guy E.	Anderson	Madison
Ross, Harry P.	Richmond	Wayne-Union
Ross, James B.	Bloomington	Owen-Monroe
Ross, James S.	Richmond	Wayne-Union
Rossiter, Dudley L.	Fort Wayne	Allen
Roth, Bertram S.	Indianapolis	Marion
Roth, James R.	Columbia City	Noble
Roth, Leo	Gary	Lake
Roth, Melvin I.	Gary	Lake
Rothberg, Maurice	Fort Wayne	Allen
Rothrock, Philip W.	Lafayette	Tippecanoe
Rotman, Harry G.	Jasonville	Greene
Rotman, Sam I.	Jasonville	Greene
Rouen, Robert	Elkhart	Elkhart
Rousseau, John W.	Fort Wayne	Allen
Row, D. Hamilton	Indianapolis	Marion
Row, George S.	Osgood	Ripley
Row, Perrie Q.	Hammond	Lake
Rowe, Howard H.	Rochester	Fulton
Royster, George M. (S)	Evansville	Vanderburgh
Royster, Robert A.	Evansville	Vanderburgh
Rozelle, Clarence V.	Anderson	Madison
Rubens, Eli	South Bend	St. Joseph
Rubin, Milton M.	Terre Haute	Vigo
Rubin, Simon S.	Gary	Lake
Rubright, Robert L.	Hammond	Lake
Ruby, Fred McK. (S)	Wauwatosa, Wis.	Randolph
Rucker, Warren R.	Madison	Jefferson-Switzerland
Ruddell, Karl R. (S)	Indianapolis	Marion
Ruddell, Keith R.	Indianapolis	Marion
Rudesill, Cecil L. (S)	Indianapolis	Marion
Rudesill, Robert L.	Indianapolis	Marion
Rudicel, Max	Kokomo	Howard
Rudolph, Carl J.	South Bend	St. Joseph
Rudolph, Franklin G.	Munster	Lake
Rudolph, Kenneth J.	Evansville	Vanderburgh
Rudolph, Stephen J., Jr.	Cannon A.F.B., New Mexico	Marion
Rudser, Donald H.	Whiting	Lake
Rudy, Donald B.	Lisboa, Portugal	Wells
Runge, Paul W.	Richmond	Wayne-Union
Rupe, Lloyd O.	Elkhart	Elkhart
Rupel, Ernest	Indianapolis	Marion
Rupper, Warren R.	Evansville	Vanderburgh
Rusche, Henry J.	Evansville	Vanderburgh
Ruschli, Edward B. (S)	Lafayette	Tippecanoe
Rusk, Hubert M.	Wallace	Fountain-Warren
Rusler, William J.	Rochester	Fulton
Russell, John R.	Indianapolis	Marion
Russell, Richard H.	Evansville	Vanderburgh
Russo, Andrew E.	Crown Point	Lake
Rust, Byron K.	Indianapolis	Marion
Rust, Roland B.	Indianapolis	Marion
Ruth, Martin L.	Indianapolis	Marion
Rutherford, Cyrus W. (S)	Indianapolis	Marion
Ryan, Glen V.	Indianapolis	Marion
Ryan, Hubert J.	Gary	Lake
Ryan, William J.	Columbus	Bartholomew-Brown

S

Sabens, James A.	Scottsburg	Scott
Sacks, Leonard Z.	Valparaiso	Porter
Sage, Charles V.	Richmond	Wayne-Union
Sage, Russell A.	Indianapolis	Marion
Sahlman, Hans	Fort Wayne	Allen
Saint, William K.	New Castle	Henry
Sala, Joseph J.	Gary	Lake
Sala, Walter R.	Gary	Lake
Salb, John P.	Jasper	Dubois
Salb, Leo A. (S)	Jasper	Dubois
Salb, Max C.	Indianapolis	Marion
Salon, Harry W.	Fort Wayne	Allen
Salon, Joel W.	Fort Wayne	Allen
Salon, Nathan L.	Fort Wayne	Allen
Salzburg, Herbert E.	Westville	La Porte
Sanders, Bertram W.	Connersville	Fayette-Franklin
Sanders, Harry M.	Indianapolis	Marion
Sanders, Jesse A. (S)	Auburn	De Kalb
Sanderson, Robert B.	South Bend	St. Joseph
Sandock, Louis F.	South Bend	St. Joseph
Sandoz, Harry H.	South Bend	St. Joseph
Santare, Vincent J.	Munster	Lake
Santiago, Iluminada	Highland	Lake
Sargent, Wallace B.	Hammond	Lake
Sarver, Francis E.	Fort Wayne	Allen
Savage, Arthur R.	Fort Wayne	Allen
Sayers, Frank E. (S)	Terre Haute	Vigo
Saylors, Rodger D.	Fort Wayne	Allen
Scales, Alfred B.	Huntingburg	Dubois
Scales, Allen D.	Huntingburg	Dubois
Scamahorn, Malcolm O.	Pittsboro	Hendricks
Scamahorn, Oscar T. (S)	Pittsboro	Hendricks
Scea, Wallace A.	Elwood	Madison
Schaaf, Alvin D.	Jamestown	Boone
Schafer, William C.	Washington	Daviess-Martin
Schaffer, Edward V.	Indianapolis	Marion
Schantz, Richard	Remington	Jasper-Newton
Schaphorst, Richard A.	South Bend	St. Joseph

Name	City	County
Scharbrough, Wm. D.	Ewing	Jackson-Jennings
Schauwecker, Cleon M.	Greencastle	Putnam
Schechter, John S.	Indianapolis	Marion
Scheeringa, Ronald H.	Fort Worth, Texas	Marion
Scheetz, Marion R.	Lewisville	Henry
Scheier, Emil W.	Indianapolis	Marion
Scheimann, Lois	Valparaiso	Porter
Schell, Harry D.	Bloomington	Owen-Monroe
Schellhouse, Earl M.	St. Louis, Mo.	Allen
Schenck, Foss (S)	Logansport	Cass
Schenck, Ralph E.	Portland	Jay
Scherb, Burton E.	Terre Haute	Vigo
Scherschel, John P.	Bedford	Lawrence
Scheurich, Virgil	Oxford	Benton
Schiller, Herbert A.	South Bend	St. Joseph
Schimmelpfennig, Robert W.	Evansville	Vanderburgh
Schirmer, Robert H.	Evansville	Vanderburgh
Schlademan, Karl R.	Fort Wayne	Allen
Schlaegel, Theo. F., Jr.	Indianapolis	Marion
Schlegel, Donald M.	Indianapolis	Marion
Schlemmer, George H.	Warsaw	Kosciusko
Schlesinger, Daniel J.	Hammond	Lake
Schloss, Robert P.	Fort Wayne	Allen
Schlosser, Herbert C.	Elkhart	Elkhart
Schmalhausen, Ansel W.	Indianapolis	Marion
Schmidt, Eugene E.	Fort Wayne	Allen
Schmidt, Loren F.	Indianapolis	Marion
Schmidt, Richard H.	Valparaiso	Porter
Schmiedicke, Paul H.	Lafayette	Tippecanoe
Schmitt, Richard K.	Columbus	Bartholomew-Brown
Schmitt, Robert J.	Chicago, Ill.	Lake
Schmoll, Robert J.	Fort Wayne	Allen
Schmoyer, Maurice R.	Indianapolis	Marion
Schneider, Carl J.	Indianapolis	Marion
Schneider, Charles P.	Evansville	Vanderburgh
Schneider, Kenneth D.	Nashville	Bartholomew-Brown
Schneider, Louis A.	Fort Wayne	Allen
Schneider, Paul A.	Indianapolis	Marion
Schnute, Richard B.	Indianapolis	Marion
Schoen, Frederic L.	Fort Wayne	Allen
Schoenhals, Charles E.	Muncie	Delaware-Blackford
Schoolfield, William E.	Orleans	Orange
Schoonveld, Arthur	Brook	Jasper-Newton
Schott, Edward J. (S)	Terre Haute	Vigo
Schreiner, John E.	Bremen	Marshall
Schrepferman, Wayne	Hamilton	Steuben
Schriefer, Victor V.	Evansville	Vanderburgh
Shrock, Ethan E.	Amboy	Miami
Schroeder, Henry R.	Washington	Daviess-Martin
Schroeder, Robert W.	Marion	Grant
Schubert, Jerome C.	Fort Wayne	Allen
Schuchman, Abe	Indianapolis	Marion
Schuchman, Gabriel	Indianapolis	Marion
Schulfer, Richard J.	Hammond	Lake
Schulhof, Maurice G.	Muncie	Delaware-Blackford
Schulz, Kurt J.	Gary	Lake
Schulze, William	Vincennes	Knox
Schumaker, Robert A.	Terre Haute	Vigo
Schuman, Edith B.	Bloomington	Owen-Monroe
Schuster, Dwight W.	Indianapolis	Marion
Schwartz, Frederick C.	Kokomo	Howard
Schwartz, Jack	Munster	Lake
Schwartz, Mary M.	Hammond	Lake
Schwarz, Anton	Indianapolis	Marion
Sciarrone, Francesco	Michigan City	La Porte
Scofield, John B.	Indianapolis	Marion
Scoins, William H.	Fort Wayne	Allen
Scott, Frank M.	South Bend	St. Joseph
Scott, George E.	Indianapolis	Marion
Scott, H. Vaughn	Fort Wayne	Allen
Scott, Irvin H.	Sullivan	Sullivan
Scott, I. Winfield	Indianapolis	Marion
Scott, John S.	La Porte	La Porte
Scott, John R.	Indianapolis	Marion
Scott, Robert P.	Indianapolis	Marion
Scott, Robert O.	Charlottesville	Hancock
Scott, Samuel L.	Indianapolis	Marion
Scott, V. Brown	Shelbyville	Shelby
Scudder, Arthur N.	Brownsburg	Hendricks
Scully, John T.	Gary	Lake
Scully, William E.	Terre Haute	Vigo
Seal, Perry F.	Brookville	Fayette-Franklin
Seaman, Charles F.	Indianapolis	Marion
Sears, Don	Odon	Daviess-Martin
Sears, M. Maywood (S)	Elkhart	Elkhart
Seat, Marshall H.	Washington	Daviess-Martin
Sedam, Herbert L.	Indianapolis	Marion
Seese, Robert M.	Delphi	Carroll
Segar, Louis H. (S)	Indianapolis	Marion
Segar, William E.	Indianapolis	Marion
Seibel, Robert M.	Nashville	Bartholomew-Brown
Seipel, Stanley	Lanesville	Harrison-Crawford
Selby, Keith E.	South Bend	St. Joseph
Sellers, Francis M.	South Bend	St. Joseph
Sellmer, George W.	Indianapolis	Marion
Senese, Thomas J.	Gary	Lake
Sennett, Cecil M. (S)	Westville	La Porte
Sennett, William K.	Macy	Miami
Senseny, Eugene F.	Fort Wayne	Allen
Sensenich, Roscoe L. (H)	South Bend	St. Joseph
Serna, Carlos A.	East Chicago	Lake
Serna, Jesus A.	East Chicago	Lake
Seward, George W.	North Manchester	Wabash
Sexson, Hiram T.	Indianapolis	Marion
Seyler, Anna G.	La Verne, Calif.	Lake
Shafer, Marion R.	Indianapolis	Marion
Shafer, Richard H.	Alexandria	Madison
Shaffer, Kenneth L.	Vincennes	Knox
Shaffer, William R.	Greensburg	Decatur
Shallenberger, Henry R.	Modoc	Randolph
Shanafelt, Donald K.	Indianapolis	Marion
Shanklin, Jack L.	Bicknell	Knox
Shanklin, Vernon A. (S)	Terre Haute	Vigo
Shanks, Ray W.	Noblesville	Hamilton
Shannon, Wesley E.	Crawfordsville	Montgomery
Shapiro, Burton J.	Indianapolis	Marion
Shapiro, Joseph	East Chicago	Lake
Shapiro, Seymour W.	East Chicago	Lake
Sharp, Merle C.	South Bend	St. Joseph
Sharp, William L.	Anderson	Madison
Shattuck, John C.	Brazil	Clay
Shaw, Houston W.	Jeffersonville	Clark
Shaw, James E.	Fort Wayne	Allen
Sheehan, Francis G.	Indianapolis	Marion
Sheek, Kenneth I.	Greenwood	Johnson
Sheets, Charles E.	Manilla	Rush
Sheldon, Suel A.	Anderson	Madison
Shelley, Edward S.	South Bend	St. Joseph
Shelley, Richard J.	Indianapolis	Marion
Shellhouse, Michael	Gary	Lake
Shelton, Clyde F.	New Albany	Floyd
Shenk, Earl M. (S)	Kokomo	Howard
Shepard, Fred F.	College Corner, Ohio	Wayne-Union
Sherer, Kenneth E.	Richmond	Wayne-Union
Sherster, Harry	Indianapolis	Marion
Sherwood, Clarence E.	Fort Wayne	Allen

Name	City	County
Sherwood, J. Vincent	Fort Wayne	Allen
Shevick, Alexander	Gary	Lake
Shields, Jack E.	Brownstown	Jackson-Jennings
Shields, Tom S.	Richmond	Wayne-Union
Shina, Heskel S.	Charlestown	Clark
Shinabery, Lawerence	Fort Wayne	Allen
Shipley, Edward	Indianapolis	Marion
Shively, John L.	Lafayette	Tippecanoe
Shoemaker, Richard L.	Gas City	Grant
Sholty, William M.	Lafayette	Tippecanoe
Shoptaugh, A. Glenn, Jr.	Wichita Falls, Texas	Marion
Short, John T. (S)	Fort Wayne	Allen
Shoup, Homer B. (S)	Greentown	Howard
Showalter, John P.	Waterloo	De Kalb
Showalter, John R.	Terre Haute	Vigo
Shrader, Carl E.	Warsaw	Kosciusko
Shriner, Richard L.	South Bend	St. Joseph
Shroyer, Herbert	Dunkirk	Jay
Shuck, William A.	Madison	Jefferson-Switzerland
Shullenberger, Wendell A.	Indianapolis	Marion
Shulruff, Harry I.	East Chicago	Lake
Shultz, Clifford	Butler	DeKalb
Shumacker, Harris B., Jr.	Indianapolis	Marion
Sibbitt, Joseph W.	Bloomington	Owen-Monroe
Sicks, Okla W.	Indianapolis	Marion
Sidebottom, Earl W.	Indianapolis	Marion
Sidell, James P.	Fort Wayne	Allen
Siderys, Harry	Indianapolis	Marion
Siebe, Jack C.	Indianapolis	Marion
Siebenmorgen, Louis (S)	Terre Haute	Vigo
Siebenmorgen, Paul	Terre Haute	Vigo
Siekierski, Joseph M.	Griffith	Lake
Siersdorfer, Theodore N. (S)	Indianapolis	Marion
Sigmond, Harvey W.	Indianapolis	Marion
Sigmund, William B.	Columbus	Bartholomew-Brown
Silbert, David B.	Shelbyville	Shelby
Silver, Richard A.	Indianapolis	Marion
Silverman, Norman M.	Terre Haute	Vigo
Silvian, Harry A.	Whiting	Lake
Simmons, Frederick H.	Marion	Grant
Simmons, James E.	Indianapolis	Marion
Simmons, Lloyd H.	Goshen	Elkhart
Simms, J. Leon	Indianapolis	Marion
Simpson, Robert L.	Bluffton	Wells
Simpson, William D.	Indianapolis	Marion
Sims, J. Lawrence	Indianapolis	Marion
Singer, Elmer C. (S)	Fort Wayne	Allen
Singer, Paul J.	Jasper	Dubois
Sinn, Charles M.	Evansville	Vanderburgh
Siruge, Aldo C.	La Porte	La Porte
Sirlin, Edward M.	Mishawaka	St. Joseph
Sisk, Phillip B.	Indianapolis	Marion
Sisson, Norvel D.	South Bend	St. Joseph
Skeen, Earl D. (S)	Walkerton	Lake
Skillern, Penn G. (S)	South Bend	St. Joseph
Skillern, Scott D.	South Bend	St. Joseph
Skomp, Claud E.	Marion	Grant
Slabaugh, Jancy S. (S)	Nappanee	Elkhart
Slama, George F.	Gary	Lake
Slama, John T.	Gary	Lake
Slaughter, Howard C.	Evansville	Vanderburgh
Slaughter, John C., Jr.	Evansville	Vanderburgh
Slaughter, Owen L.	Evansville	Vanderburgh
Slick, Crystal R.	Winchester	Randolph
Sloan, Herbert P.	New Albany	Floyd
Sloan, W. Keith	Madison	Jefferson-Switzerland
Slominski, Harry H. (S)	South Bend	St. Joseph
Slough, O. Thomas	Kendallville	Noble
Sluss, David H.	Indianapolis	Marion
Smith, A. Wilson	Greencastle	Putnam
Smith, Barton T.	Marion	Grant
Smith, Byron J.	Kingman	Fountain-Warren
Smith, Charles F.	Kokomo	Howard
Smith, David L.	Indianapolis	Marion
Smith, Edward B.	Washington, D. C.	Marion
Smith, E. Rogers	Indianapolis	Marion
Smith, Francis C.	Indianapolis	Marion
Smith, Fred, Jr.	Tell City	Perry
Smith, Frederick R.	Spencer	Owen-Monroe
Smith, Gloster J.	Kokomo	Howard
Smith, Gordon L.	Evansville	Vanderburgh
Smith, Herbert N.	Brookville	Fayette-Franklin
Smith, Herschel S.	Bloomington	Owen-Monroe
Smith, James S.	Muncie	Delaware-Blackford
Smith, Jerald E.	Hammond	Lake
Smith, John H.	Greenfield	Hancock
Smith, John R.	Richmond	Wayne-Union
Smith, Lee Jr.	Castaner, Puerto Rico	St. Joseph
Smith, Lloyd H.	North Manchester	Wabash
Smith, Lowell C.	Lafayette	Tippecanoe
Smith, Mark E.	New Castle	Henry
Smith, Philip L.	Fort Wayne	Allen
Smith, Ralph O.	Vincennes	Knox
Smith, Richard B.	Fort Wayne	Allen
Smith, Robert D.	Lowell	Lake
Smith, Rodney D. (S)	Bloomington	Owen-Monroe
Smith, R. Lee	Osgood	Ripley
Smith, Roger C.	Fort Wayne	Allen
Smith, Roy Lee	Indianapolis	Marion
Smith, Roy M.	Evansville	Vanderburgh
Smith, S. Joseph	Vincennes	Knox
Smith, Stephen D.	Knightstown	Rush
Smith, Theodore J.	Whiting	Lake
Smith, William B.	Indianapolis	Marion
Smith, William M.	Westville	La Porte
Smitley, Roger P.	Hammond	Lake
Smoot, Emory B.	Washington	Daviess-Martin
Smucker, Ernest E.	Elkhart	Elkhart
Snapp, Richard A.	Columbus	Bartholomew-Brown
Sneary, Max E.	Avilla	Noble
Snider, Byron	Indianapolis	Marion
Snively, William D., Jr.	Evansville	Vanderburgh
Snodgrass, Robert E.	Greenwood	Johnson
Snowhite, Arthur B.	Marion	Grant
Snyder, Earl R. (S)	Troy	Perry
Snyder, Jerome A.	Munster	Lake
Snyder, Morris C.	Richmond	Wayne-Union
Snyder, Parker W.	Peru	Miami
Snyderman, Sanford C.	Fort Wayne	Allen
Sobol, Z. W.	Elkhart	Elkhart
Sokol, Allen B.	Whiting	Lake
Solis, Roger V.	Hammond	Lake
Solomon, Reuben A.	Indianapolis	Marion
Somers, Gerald H.	Fort Wayne	Allen
Sonne, Irvin S., Jr.	New Albany	Floyd
Soper, Hunter A.	Indianapolis	Marion
Sorenson, Raymond	Kokomo	Howard
Sorg, David A.	Bluffton	Wells
Souder, Bonnell M. (S)	Auburn	De Kalb
Souter, Martha C.	Indianapolis	Marion
Southard, Carl B.	Noblesville	Hamilton
Southard, James E.	Danville	Hendricks
Sovine, Joe W.	Indianapolis	Marion
Spahr, Donald E.	Portland	Jay
Spahr, John F., Jr.	Indianapolis	Marion
Spalding, Joseph J.	Indianapolis	Marion
Spalding, Wendell L.	Mishawaka	St. Joseph
Spangler, Jesse S.	Kokomo	Howard
Spangler, John S.	Indianapolis	Marion

Name	City	County
Sparks, Alan L.	Indianapolis	Marion
Sparks, Paul W.	Winchester	Randolph
Spears, John K.	Paoli	Orange
Spears, John M.	Indianapolis	Marion
Speas, Robert C.	Terre Haute	Vigo
Speck, Carlson R.	Muncie	Delaware-Blackford
Speckman, Glenn H.	Indianapolis	Marion
Spellman, Frank W.	Gary	Lake
Spencer, Beaufort A.	Bloomington	Owen-Monroe
Spencer, Frederic	Vincennes	Knox
Spencer, C. Herbert	Fort Wayne	Allen
Spenner, Raymond W.	South Bend	St. Joseph
Spindler, Robert D.	Shelbyville	Shelby
Spivack, Mary	Gary	Lake
Spivey, Russell J.	Indianapolis	Marion
Spolyar, Louis W.	Indianapolis	Marion
Sponder, Joseph (S)	Gary	Lake
Spray, Page E.	Elkhart	Elkhart
Sprecher, Herman C.	Evansville	Vanderburgh
Springstun, George H.	Oaktown	Knox
Springstun, Walter R.	Evansville	Vanderburgh
Spurlock, Fae H.	West Lafayette	Tippecanoe
Sputh, Carl B., Jr.	Indianapolis	Marion
Sroka, Alexander G.	Hammond	Lake
Sroka, Stanley J.	Highland	Lake
Stach, Thomas W.	Indianapolis	Marion
Stadler, Harold E.	Indianapolis	Marion
Staff, Robert A.	Terre Haute	Parke-Vermillion
Stafford, William C.	Plainfield	Hendricks
Stahl, Edward T.	Lafayette	Tippecanoe
Stallings, Hugh A.	Evansville	Vanderburgh
Stallman, Carl F.	Kendallville	Noble
Stalter, Gaylord W.	North Webster	Whitley
Stamper, Joseph H.	Anderson	Madison
Stamper, Lucian A.	Richmond	Wayne-Union
Stamper, Robert J.	Anderson	Madison
Stander, Richard W.	Indianapolis	Marion
Stangle, William J.	Bloomington	Owen-Monroe
Stanley, John S.	Indianapolis	Marion
Stanley, Robert G.	Fort Wayne	Allen
Stansbury, William E.	Indianapolis	Marion
Stansell, Gilbert B.	Lafayette	Tippecanoe
Starks, William O.	Anderson	Madison
Stasick, Murray	Hammond	Lake
Staten, Jesse C.	Indianapolis	Marion
Stauffer, George E.	Mooreland	Henry
Stauffer, Richard C.	Fort Wayne	Allen
Stauffer, Walter A. (S)	Elkhart	Elkhart
Staunton, Henry A.	South Bend	St. Joseph
Stayton, Chester A., Jr.	Indianapolis	Marion
Steckler, Robert J.	Garden Grove, Calif.	Vanderburgh
Stecy, Peter	Whiting	Lake
Steele, Dick J.	Greencastle	Putnam
Steele, Everett B.	Crown Point	Lake
Steele, Frank M.	Muncie	Delaware-Blackford
Steele, Hugh H.	Lafayette	Tippecanoe
Steele, Paul W.	Evansville	Vanderburgh
Steen, Lowell H.	Whiting	Lake
Steffen, Julian T.	Wabash	Wabash
Steffy, Ralph M.	Portland	Jay
Steigmeyer, David J.	Fort Wayne	Allen
Stein, Richard H.	Vincennes	Knox
Steinem, Joseph L.	Connersville	Fayette-Franklin
Steinkamp, Emil F. (S)	Huntingburg	Dubois
Steinmetz, Edward F.	Indianapolis	Marion
Stephens, Donald E.	Indianapolis	Marion
Stephens, James P.	Greencastle	Putnam
Stephens, Kuhrman H.	Indianapolis	Marion
Stephens, Lowell R.	Covington	Fountain-Warren
Stepleton, John D.	Richmond	Wayne-Union
Stern, Mona K.	East Gary	Lake
Stern, Samuel L.	Hammond	Lake
Sterne, John H.	Evansville	Vanderburgh
Steury, Ernest M.	Kenya Colony, B. E. Africa	Marion
Steussy, Calvin N.	New Castle	Henry
Stevens, Adam C.	Bluffton	Wells
Stevens, Edwin W.	Munster	Lake
Stevens, Sydney L.	Indianapolis	Marion
Stewart, J. Frank W.	Vincennes	Knox
Stewart, L. Ray	Evansville	Vanderburgh
Stewart, Walter E. (S)	Terre Haute	Vigo
Stibbins, Warren E.	Muncie	Delaware-Blackford
Stier, Paul L.	Fort Wayne	Allen
Stillwell, William R.	Richmond	Wayne-Union
Stimson, Harry R.	Gary	Lake
Stine, Marshall E.	Bremen	Marshall
Stinson, Dean K.	Rochester	Fulton
Stinson, William M.	Anderson	Madison
Stiver, Daniel D.	South Bend	St. Joseph
Stoelting, J. Lewis	Terre Haute	Vigo
Stoelting, Vergil K.	Indianapolis	Marion
Stogdill, William J.	South Bend	St. Joseph
Stogsdill, Willis W.	Franklin	Johnson
Stoltz, Robert M.	Valparaiso	Porter
Stone, Alvin T.	Indianapolis	Marion
Stone, Robert C.	Ligonier	Noble
Stookey, Richard D.	Gary	Lake
Stoops, Jean T.	Wabash	Wabash
Storey, D. Edmund	Indianapolis	Marion
Storey, Joseph L.	Indianapolis	Marion
Stork, Harvey K.	Huntingburg	Dubois
Stork, Urban F. D.	Evansville	Vanderburgh
Storms, Roy B. (S)	Indianapolis	Marion
Stouder, Albert E.	Kempton	Tipton
Stouder, Charles E.	Ellettsville	Owen-Monroe
Stout, Francis E.	Muncie	Delaware-Blackford
Stout, Harry T.	Frankfort	Clinton
Stout, Walter M. (S)	New Castle	Henry
Stover, Wendell C.	Boonville	Warrick
Stoycoff, Christ M. (S)	Gary	Lake
Strang, William C.	Indianapolis	Marion
Stratigos, Joseph S.	Evanston, Ill.	St. Joseph
Strayer, Joseph W.	Lafayette	Tippecanoe
Streck, Francis A.	Lawrenceburg	Dearborn-Ohio
Strecker, William L.	Terre Haute	Vigo
Streepey, Jefferson I.	New Albany	Floyd
Streeter, Ralph T.	Indianapolis	Marion
Stricker, Paul J.	New Castle	Henry
Strehler, Don A.	Bluffton	Wells
Strickland, Karl S. (S)	Princeton	Gibson
Strickland, Neil R.	Indianapolis	Marion
Strong, Daniel S. (S)	Terre Haute	Vigo
Stroup, Tyler J.	Indianapolis	Marion
Strueh, Paul E.	Evansville	Vanderburgh
Stubbins, William M.	Elkhart	Elkhart
Stucky, Elsworth K.	Indianapolis	Marion
Stucky, Jerry L.	Fort Wayne	Allen
Studebaker, Lloyd R.	LaGrange	LaGrange
Stultz, Quentin F.	Ligonier	Noble
Stump, Loyd K.	Indianapolis	Marion
Stump, Thomas A.	Indianapolis	Marion
Stumpf, Edwin E.	New Haven	Allen
Stuntz, Edgar C.	Lafayette	Tippecanoe
Sturgis, Donald G.	Sellersburg	Clark
Suelzer, John G.	Indianapolis	Marion
Suess, Robert E.	Indianapolis	Marion
Sugarman, Benjamin E.	French Lick Springs	Orange
Sullenger, Adron A.	Vincennes	Knox
Sullivan, James J.	Indianapolis	Marion
Sullivan, John M.	Terre Haute	Vigo
Sullivan, Robert E.	Fort Wayne	Allen

Name	City	County
Summerlin, Jack D.	Indianapolis	Marion
Surratt, Mary Norris	Indianapolis	Marion
Sutton, William E.	Indianapolis	Marion
Suzuki, Tsutomu T.	Covington	Fountain-Warren
Swan, John R.	Indianapolis	Marion
Swan, Richard C.	Anderson	Madison
Swank, Lucretia R.	Elkhart	Elkhart
Sweany, Stanford K.	Munster	Lake
Sweet, Howard E.	Richmond	Wayne-Union
Swihart, Danny D.	Elkhart	Elkhart
Swihart, Homer R.	Elkhart	Elkhart
Swihart, John J.	Warsaw	Kosciusko
Symmes, Alfred T.	Indianapolis	Marion
Symon, William E.	Bluffton	Wells
Szumilas, Peter P.	Cheyenne, Wyo.	Marion
Szynal, John S.	Indianapolis	Marion
T		
Tabaka, Francis B.	La Porte	La Porte
Tager, Stephen N.	Evansville	Vanderburgh
Takahashi, Masato	Indianapolis	Marion
Talarico, Leonard H.	Rochester, N. Y.	Marion
Talbert, Pierre C.	Bluffton	Wells
Talbott, Dan E.	Indianapolis	Marion
Tan, Constancio C.	Newport News, Va.	Miami
Tanner, Henry S.	Indianapolis	Marion
Taraba, Ralph W.	Bloomington	Owen-Monroe
Tate, Elizabeth	Dunkirk	Jay
Taub, Robert G.	Michigan City	La Porte
Taube, Jack I.	Indianapolis	Marion
Taylor, Clifford C.	Indianapolis	Marion
Taylor, Cyril	Indianapolis	Marion
Taylor, Donald R.	Muncie	Delaware-Blackford
Taylor, Everett C.	Upland	Grant
Taylor, Frederic W.	Indianapolis	Marion
Taylor, James A.	Muncie	Delaware-Blackford
Taylor, John R.	Palestine, Ill.	Sullivan
Taylor, M. Reed, Jr.	Howe	LaGrange
Taylor, Max T.	Fort Benning, Ga.	Marion
Taylor, Robert G.	Fort Wayne	Allen
Taylor, Wade H. (S)	Ambia	Benton
Taylor, William R. (S)	Richmond	Wayne-Union
Teague, Frank W.	Indianapolis	Marion
Teal, Dorothy D.	Columbus	Bartholomew-Brown
Teegarden, Joseph A. (S)	East Chicago	Lake
Teegarden, Joseph A., Jr.	East Chicago	Lake
Teixler, Victor A.	Indianapolis	Marion
Templeton, Ames R.	Mishawaka	St. Joseph
Templeton, Ian S.	Seymour	Jackson-Jennings
Templin, David B.	Lowell	Lake
Tennant, David L.	Fort Wayne	Allen
Tennis, George T.	Greencastle	Putnam
Tepfer, Milton	Indianapolis	Marion
Teplinsky, Louis L.	East Chicago	Lake
Terbush, Edward L.	Logansport	Cass
Terrill, Richard W.	Fort Wayne	Allen
Terry, Lloyd	Danville	Hendricks
Terry, Robert H.	Boonville	Warrick
Terveer, John B.	Decatur	Adams
Test, Charles E.	Indianapolis	Marion
Teter, George V.	Indianapolis	Marion
Teters, Melvin S. (S)	Middlebury	Elkhart
Tether, Joseph E.	Indianapolis	Marion
Tetrick, Lain	Valparaiso	Porter
Tharp, Donald W.	Muncie	Delaware-Blackford
Tharpe, Ray G.	Indianapolis	Marion
Thatcher, Hugh K., Jr.	Indianapolis	Marion
Thayer, Benet W.	North Vernon	Jackson-Jennings
Theobald, Sterling	Dyer	Lake
Thimlar, James W. (S)	Fort Wayne	Allen
Thom, Julia S.	Terre Haute	Vigo
Thoman, Rex L.	Indianapolis	Marion
Thomas, Andrew C.	Hobart	Lake
Thomas, Charles R.	Indianapolis	Marion
Thomas, Daniel D.	Gary	Lake
Thomas, Edward P.	Indianapolis	Marion
Thomas, Everett W.	Warsaw	Kosciusko
Thomas, Fred A.	Indianapolis	Marion
Thomas, Gerald J.	Gary	Lake
Thomas, Lowell I.	Indianapolis	Marion
Thomas, Morris E.	Indianapolis	Marion
Thomas, Thomas R.	Munster	Lake
Thomas, W. Clayton	Carmel	Hamilton
Thompson, Alfred A. (S)	Tyner	Marshall
Thompson, B. Jay	Marion	Grant
Thompson, Claude N.	Waynetown	Montgomery
Thompson, Frank M.	Columbia City	Whitley
Thompson, John M.	South Bend	St. Joseph
Thompson, John V.	Indianapolis	Marion
Thompson, Joseph F.	Indianapolis	Marion
Thompson, Naiad Mason	Evansville	Vanderburgh
Thompson, Paul D.	Indianapolis	Marion
Thompson, Robert A.	South Bend	St. Joseph
Thompson, Wayne H.	Indianapolis	Marion
Thompson, Wm. R.	Winamac	Pulaski
Thorne, Charles E.	New Castle	Henry
Thornton, Harold C.	Indianapolis	Marion
Thornton, Maurice J.	South Bend	St. Joseph
Thrasher, John R. (S)	New Augusta	Marion
Throop, Frank B.	Indianapolis	Marion
Thurston, Harrison S. (S)	Dayton, Ohio	Marion
Tilden, Margaret H.	Evansville	Vanderburgh
Tiley, George A.	Greenwood	Johnson
Tilka, Edward C.	Hammond	Lake
Tindall, George T.	Indianapolis	Marion
Tindall, Paul R. (S)	Shelbyville	Shelby
Tindall, William R.	Shelbyville	Shelby
Tinney, William E. (S)	Pass-A-Grille, Fla.	Marion
Tinsley, Frank W.	Indianapolis	Marion
Tinsley, Walter B. (S)	Indianapolis	Marion
Tinsley, Walter B., Jr.	Indianapolis	Marion
Tipton, William R.	Greencastle	Putnam
Tirman, Wallace S.	South Bend	St. Joseph
Tischer, E. Paul	Indianapolis	Marion
Tisserand, John B. Jr.	Evansville	Vanderburgh
Tobe, Robert	Muncie	Delaware-Blackford
Todd, David D. (S)	LaJolla, Calif.	Elkhart
Tolbert, Robert D.	Vincennes	Knox
Tomak, Milton E.	Linton	Greene
Tomlin, Hugh M.	Muncie	Delaware-Blackford
Tomusk, August N.	Fort Wayne	Allen
Tondra, John M.	Indianapolis	Marion
Topolgus, James N.	Bloomington	Owen-Monroe
Topping, Malachi C.	Terre Haute	Vigo
Torella, Jose A.	Indianapolis	Marion
Tosick, William A.	Indianapolis	Marion
Toumey, Fred L.	Indianapolis	Marion
Tower, James H., Jr.	Shelbyville	Shelby
Tower, Thomas K.	Campbellsburg	Washington
Trachtenberg, Lee	Hammond	Lake
Tranter, William F.	Sharpsville	Tipton
Traver, Perry C. (S)	South Bend	St. Joseph
Tremain, Milton A. (S)	Adams	Decatur
Treon, James F. (S)	Aurora	Dearborn-Ohio

Name	City	County
Trepagnier, Francis B.	E. Chicago	Lake
Trier, Herbert P.	Fort Wayne	Allen
Trimble, John G.	Kokomo	Howard
Trout, Carl J.	Lafayette	Tippecanoe
Troutwine, William R.	Crown Point	Lake
Troy, Jack M.	Whiting	Lake
Troyer, Dana	Goshen	Elkhart
Troyer, George W.	Elkhart	Elkhart
Trudgen, Spencer F.	Indianapolis	Marion
Trusler, Harold M.	Indianapolis	Marion
Tsatsos, George C.	Gary	Lake
Tubbs, George R. (S)	Lafayette	Tippecanoe
Tuchman, Joseph H.	Indianapolis	Marion
Tucker, Oral A.	Daleville	Delaware-Blackford
Tucker, Warren S.	Indianapolis	Marion
Tuholski, James M.	Evansville	Vanderburgh
Tully, John A. (S)	New Castle	Henry
Tunnell, Harry D.	Michigan City	La Porte
Turgi, Robert W.	Gary	Lake
Turley, Verne L.	Fowler	Benton
Turner, Anna Goss	Madison	Jefferson-Switzerland
Turner, Harold B. (S)	Bloomfield	Greene
Turner, Jack J.	Bloomfield	Greene
Turner, John P.	Goshen	Elkhart
Turner, Oscar A. (S)	Madison	Jefferson-Switzerland
Tweedall, Daniel C.	Evansville	Vanderburgh
Tyler, Edward A.	Indianapolis	Marion
Tyler, Frank T. (S)	New Albany	Floyd
Tyler, Stanley H.	Bloomington	Owen-Monroe
Tyner, Harlan H.	Indianapolis	Marion
Tyrrell, Joseph J.	Calumet City, Ill.	Lake
Tyrrell, Thomas C.	Calumet City, Ill.	Lake

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Ullom, Ralph B.	Indianapolis	Marion
Ulrey, Robert P.	Elwood	Madison
Underwood, George M.	Lafayette	Tippecanoe
Ungemach, Willo F.	Fort Wayne	Allen
Urruti, Arnoldo H.	South Bend	St. Joseph
Urschel, Dan L.	Mentone	Kosciusko

V

Vagner, S. Bernard	South Bend	St. Joseph
Valencia, M. Monico	Gary	Lake
Van Bokkelen, Robert W.	Mooresville	Morgan
Van Buskirk, Edmund L.	Lafayette	Tippecanoe
Van Campen, Warren M.	Huntington	Huntington
Van Denbark, Howard M.	Indianapolis	Marion
Van Den Bosch, Wallace R.	Lafayette	Tippecanoe
Vandivier, Robert M.	Indianapolis	Marion
Van Dorn, Myron J.	Indianapolis	Marion
Van Fleet, Josephine	Indianapolis	Marion
Van Fleit, William E.	South Bend	St. Joseph
Van Kirk, John R.	West Lafayette	Tippecanoe
Van Kirk, Paul P.	Frankfort	Clinton
Van Meter, C. Powell	Indianapolis	Marion
Van Ness, William C.	Summitville	Madison
Van Nuys, John D.	Indianapolis	Marion
Van Rie, Leo P. (S)	Mishawaka	St. Joseph
Van Sandt, Frank A. (S)	Bloomfield	Greene
Van Tassel, Charles J.	Indianapolis	Marion
Van Vactor, Helen D.	Indianapolis	Marion
Van Wienen, John	Martinsville	Morgan
Vaughn, Walter R.	Vincennes	Knox
Veach, Lester W.	Bainbridge	Putnam
Veach, William L.	Terre Haute	Vigo
Veach, Richard L.	Bainbridge	Putnam
Vellios, Frank	Indianapolis	Marion
Venable, George L.	North Manchester	Wabash
Venis, Kemper N.	Muncie	Delaware-Blackford
Vermilya, Robert W.	Lafayette	Tippecanoe
Verplank, Grover L. (S)	Gary	Lake
Viehe, Robert W. (S)	Evansville	Vanderburgh
Vietzke, Paul C. F.	Valparaiso	Porter
Vingis, Bronie A.	Greenfield	Hancock
Viney, Charles L.	Logansport	Cass
Viray, Victoriano G.	Crawfordsville	Montgomery
Visher, John W. (S)	Evansville	Vanderburgh
Vivian, Donald E.	New Castle	Henry
Vogel, John L.	Columbia City	Whitley
Vogel, Lloyd A., Jr.	Fort Wayne	Allen
Vogel, L. John	Mount Vernon	Posey
Voges, Edward C.	Terre Haute	Vigo
Vollrath, Victor J.	Indianapolis	Marion
VonAsch, George	La Porte	La Porte
von der Lieth, Wm. C.	Vincennes	Knox
Von Der Haar, Gerard	Indianapolis	Marion
vonder Haar, Thomas E.	Evansville	Vanderburgh
Voorhees, Robert J.	Clayton, Mo.	Allen
Voorhies, McKinley	Gary	Lake
Vore, Hugh A.	Highland	Lake
Vore, Louring W.	Plymouth	Marshall
Vore, Robert E.	Indianapolis	Marion
Vormohr, Joseph F.	Portland	Jay
Voss, Gert	Muncie	Delaware-Blackford
Voyles, Harry E.	New Albany	Floyd
Vurpillat, Francis J.	South Bend	St. Joseph

W

Wachob, Tom W., Jr.	Kokomo	Howard
Wack, James E.	South Bend	St. Joseph
Wade, Alfred A. (S)	Howe	LaGrange
Wade, Reynolds W.	New Haven	Allen
Wagner, Anabel R.	Indianapolis	Marion
Wagner, Arthur L.	Jasper	Dubois
Wagner, David G.	Goshen	Elkhart
Wagner, Lindley H.	Indianapolis	Marion
Wagner, Richard	Huntington	Huntington
Wagoner, B. D.	Union City	Randolph
Wagoner, George W.	Delphi	Carroll
Wagoner, John R.	Anderson	Madison
Wainscott, Clinton S.	Indianapolis	Marion
Wait, Jerome H.	Columbia City	Whitley
Waits, Chester L.	Colfax	Clinton
Waitt, Paul M.	Sheridan	Hamilton
Walden, Heinz J.	Terre Haute	Vigo
Waldo, Guy H.	Bedford	Lawrence
Waldo, J. Thayer	Indianapolis	Marion
Walerko, Frank	Mishawaka	St. Joseph
Walker, Adolph P.	East Chicago	Lake
Walker, Edwin M., Jr.	South Bend	St. Joseph
Walker, Floyd B.	Fort Wayne	Allen
Walker, Jack M.	Muncie	Delaware-Blackford
Walker, James L. (S)	LaFontaine	Wabash
Walker, Louis	Greensburg	Decatur
Walker, Thomas	Brownsburg	Hendricks
Walker, William F.	Evansville	Vanderburgh
Wallace, Collins R.	Fort Wayne	Allen
Wallace, Elmer L.	New Albany	Floyd
Wallace, Hawthorne C.	Crawfordsville	Montgomery
Walter, Paul A. F. III	Evansville	Vanderburgh
Walter, Robert F.	Evansville	Vanderburgh
Walters, Charles E.	Mishawaka	St. Joseph
Walters, Eleanor	Gary	Lake
Walters, Jack L.	Franklin	Johnson
Walters, William H.	Michigan City	La Porte
Walther, Joseph E.	Indianapolis	Marion
Walton, R. Lee	Marion	Grant
Walton, William M.	Indianapolis	Marion

Name	City	County
Wanninger, Horace	Richmond	Wayne-Union
Warbinton, Fred P.	Plainfield	Hendricks
Ward, Gerald F.	Fort Wayne	Allen
Ward, James W.	South Bend	St. Joseph
Ward, Paula B.	Fort Wayne	Allen
Ward, Wesley C.	Indianapolis	Marion
Ware, John R.	Russiaville	Howard
Warfield, Chester H.	Fort Wayne	Allen
Warman, Alvah P. (S)	Indianapolis	Marion
Warn, William J.	Milan	Ripley
Warneke, Charles H.	Indianapolis	Marion
Warner, Charles L.	Evansville	Vanderburgh
Warren, Carroll B.	Marion	Grant
Warren, Lewis T.	Michigan City	La Porte
Warrick, Francis B.	Richmond	Wayne-Union
Warrick, Homer L.	Osceola	St. Joseph
Warriner, James B.	Indianapolis	Marion
Warshaw, Seymour	Columbus	Bartholomew-Brown
Warvel, John H., Jr.	Indianapolis	Marion
Warvel, John H.	Indianapolis	Marion
Washington, G. Kenneth	Gary	Lake
Wasserman, Don H.	Indianapolis	Marion
Waters, George W.	Evansville	Vanderburgh
Watterson, Gerald T.	Connersville	Fayette-Franklin
Way, James A.	Bloomington	Owen-Monroe
Waymire, William M.	Franklin	Johnson
Weaver, Richard J.	Lafayette	Tippecanoe
Weaver, Timothy M. (S)	Brazil	Clay
Weaver, Wm. W.	New Albany	Floyd
Webb, Harry D.	Anderson	Madison
Webb, Lawrence C.	Dana	Parke-Vermillion
Weber, Edgar H.	Evansville	Vanderburgh
Weber, John R.	Fort Wayne	Allen
Weber, Joseph G. S.	Terre Haute	Vigo
Webster, Paul L.	Lafayette	Tippecanoe
Webster, Robert K.	Brazil	Clay
Weddle, Chas. O.	Lebanon	Boone
Weeks, Patrick H. (S)	Michigan City	La Porte
Weems, Mallory P.	Jeffersonville	Clark
Wehrman, Jule O. (S)	Indianapolis	Marion
Weigand, Clayton G.	Indianapolis	Marion
Weinbaum, Jack G.	Terre Haute	Vigo
Weinberg, Benjamin A.	Whiting	Lake
Weinberg, Samuel	Marion	Grant
Weinland, George C.	Columbus	Bartholomew-Brown
Weinstein, Edwin B.	Richmond	Wayne-Union
Weinstock, Adolph	Rolling Prairie	La Porte
Weir, Dale	Louisville, Ky.	LaGrange
Weirich, Charles I.	Butler	De Kalb
Weisenberger, Brockton L.	Lawrenceburg	Dearborn-Ohio
Weiskopf, Henry S.	Gary	Lake
Weiss, Albert E.	Michigan City	LaPorte
Weiss, Eugene	South Bend	St. Joseph
Weiss, Henry G.	Evansville	Vanderburgh
Weiss, Jason	Indianapolis	Marion
Weiss, John T.	Hobart	Lake
Weiss, Louis L.	Anderson	Madison
Weissman, Charles G.	Hammond	Lake
Weitemier, Raymond A.	Richmond	Wayne-Union
Weitzel, Roland E.	Princeton	Gibson
Welborn, Mell B.	Evansville	Vanderburgh
Welch, Norbert M.	Vincennes	Knox
Weldy, Bryce P.	Hartford City	Delaware-Blackford
Weller, Charles A. (S)	Indianapolis	Marion
Weller, Ralph D.	Rossville	Clinton
Weller, Wendell	Lafayette	Tippecanoe
Wells, William R.	Princeton	Gibson
Wenzler, Paul J.	Bloomington	Owen-Monroe
Werry, Leslie E.	Hartford City	Delaware-Blackford
Wertenberger, Morris D.	Richmond	Wayne-Union
Wesemann, Merrill M.	Indianapolis	Marion
West, Joseph L.	Indianapolis	Marion
Westfall, B. Kemper	Indianapolis	Marion
Westfall, George S.	Goshen	Elkhart
Westfall, John B.	Indianapolis	Marion
Westhaysen, Peter V.	Munster	Lake
Wharton, Russell O. (S)	Gary	Lake
Wheeler, Byron C.	Terre Haute	Vigo
Wheeler, David E.	Indianapolis	Marion
Whipps, Charles E. (S)	Carlisle	Sullivan
Whisler, Frederick M. (S)	Wabash	Wabash
Whitaker, Jack	Gary	Lake
Whitcomb, Roger F.	Shelbyville	Shelby
White, Charles G.	North Webster	Whitley
White, Chester S. (S)	Rosedale	Parke-Vermillion
White, Donald G.	South Bend	St. Joseph
White, Donald J.	Indianapolis	Marion
White, Douglas H.	Indianapolis	Marion
White, Gilbert H., Jr.	Hammond	Lake
White, Harvey E.	Farmland	Randolph
White, Isaac D. (S)	Clinton	Parke-Vermillion
White, James V.	Terre Haute	Vigo
White, John B., Jr.	Indianapolis	Marion
White, Philip T.	Indianapolis	Marion
Whitlock, Francis C.	Mishawaka	St. Joseph
Whitlock, Merle E.	Mishawaka	St. Joseph
Wiatt, Leonard H.	Knightstown	Henry
Wible, James H.	Kokomo	Howard
Wick, Alfred A.	Fort Wayne	Allen
Wickstrom, Otto W.	Indianapolis	Marion
Widdifield, G. E.	Indianapolis	Marion
Wierzalis, Edward F.	Hartford City	Delaware-Blackford
Wiethoff, Clifford A.	Seymour	Jackson-Jennings
Wiggins, Dulania S. (S)	Newcastle	Henry
Wiland, Olin K.	Richmond	Wayne-Union
Wilder, Gordon B.	Anderson	Madison
Wilhelm, Agatha M.	South Bend	St. Joseph
Wilhelm, Guido P.	Indianapolis	Marion
Wilhelmus, C. Kenneth	Evansville	Vanderburgh
Wilhelmus, Charles M. (S)	Newburgh	Warrick
Wilhelmus, Gilbert M.	Evansville	Vanderburgh
Wilkens, Irvin W.	Indianapolis	Marion
Willan, Horace R. (S)	Martinsville	Morgan
Williams, A. Berniece	Fort Wayne	Allen
Williams, Aubrey H.	Fort Wayne	Allen
Williams, Alexander S.	Gary	Lake
Williams, Charles D.	Indianapolis	Marion
Williams, Clifford L.	Indianapolis	Marion
Williams, Earl K.	Columbus	Bartholomew-Brown
Williams, Edwin D.	Gary	Lake
Williams, Everett W.	Columbus	Bartholomew-Brown
Williams, Francis M.	Anderson	Madison
Williams, Fred R.	Gary	Lake
Williams, Fielding P.	Huntingburg	Dubois
Williams, Harold W.	Indianapolis	Marion
Williams, Howard S.	Indianapolis	Marion
Williams, Hugh L.	Indianapolis	Marion
Williams, John H.	Shipshewana	LaGrange
Williams, Paul A.	Rensselaer	Jasper-Newton
Williams, Paul D.	Indianapolis	Marion
Williams, Robert D.	Markleville	Madison
Williams, Robert E.	Lafayette	Tippecanoe
Williams, Robert H.	Anderson	Madison

Name	City	County
Williams, Russell S.	Lafayette	Tippecanoe
Willis, Charles F.	Evansville	Vanderburgh
Willison, George W.	Evansville	Vanderburgh
Willitts, Bruce K.	Norfolk, Va.	Marion
Willner, Alan	Clarksville	Clark
Wills, Max	Auburn	De Kalb
Wilmore, Ralph C.	Indianapolis	Marion
Wilms, John H.	W. Lafayette	Tippecanoe
Wilson, David	Evansville	Vanderburgh
Wilson, David O.	Indianapolis	Marion
Wilson, Fred L.	Terre Haute	Vigo
Wilson, Fred M.	Indianapolis	Marion
Wilson, Guy H.	Bicknell	Knox
Wilson, James M.	South Bend	St. Joseph
Wilson, John	Columbia City	Whitley
Wilson, John D.	Evansville	Vanderburgh
Wilson, Leslie	Fort Wayne	Allen
Wilson, Ned A.	Marion	Grant
Wilson, Oliver R.	Indianapolis	Marion
Wilson, Orley E.	Elkhart	Elkhart
Wilson, Paul E. (S)	Boonville	Warrick
Wilson, Paul H.	Logansport	Cass
Wilson, Ralph	Evansville	Vanderburgh
Wilson, Roland B.	Fort Wayne	Allen
Wilson, Talmage L.	Bloomington	Owen-Monroe
Wilson, Wymond B.	Mentone	Kosciusko
Wimmer, Robert N. (S)	Gary	Lake
Winklepleck, A. M.	Connersville	Fayette-Franklin
Winter, Donald K.	Logansport	Cass
Winter, William P.	Martinsville	Morgan
Wirey, Harold R.	Indianapolis	Marion
Wise, Charles L.	Camden	Carroll
Wise, William R.	Indianapolis	Marion
Wiseheart, Oscar H. (S)	North Salem	Hendricks
Wiseheart, Robert H.	Lebanon	Boone
Wiseman, V. Earle	Greencastle	Putnam
Wishard, Wm. N., Jr.	Indianapolis	Marion
Witham, Robert L.	Indianapolis	Marion
Witt, William R.	Jeffersonville	Clark
Wixted, John F.	South Bend	St. Joseph
Wixted, Julia F.	South Bend	St. Joseph
Woerner, Thomas E.	Indianapolis	Marion
Wohlfeld, Gerald	Indianapolis	Floyd
Wohlfeld, Julius B.	Bedford	Lawrence
Wojcik, Ladislas D.	Marion	Grant
Wolf, Richard S.	Jeffersonville	Clark
Wolf, Robert L.	Indianapolis	Marion
Wolfe, William E.	La Porte	La Porte
Wolfe, Morton F.	New Albany	Floyd
Wolfe, Nelson	New Albany	Floyd
Wolfram, Don J.	Indianapolis	Marion
Wolverton, George M.	Clarksville	Clark
Woner, John W.	Linton	Greene
Wong, Norman F.	Linden	Tippecanoe
Wong, Samuel N.	Hammond	Lake
Wood, Donald E.	Indianapolis	Marion
Wood, Opal L.	Brazil	Clay
Woodard, Abram S., Jr.	Indianapolis	Marion
Woodbury, John W.	Marion	Grant
Wooden, Thomas F.	Munster	Lake
Woods, Arba L. (S)	Evansville	Posey
Woods, Haldon C.	Markle	Huntington
Woods, James R., Jr.	Greenfield	Hancock
Woods, Wm. P. (S)	Evansville	Vanderburgh
Woodson, Dan E.	Boonville	Warrick
Woolery, Richard H.	Bedford	Lawrence
Woolling, Kenneth R.	Indianapolis	Marion
Work, Bruce A., Jr.	FPO, San Francisco, Calif.	Clinton
Work, Bruce A.	Frankfort	Clinton
Work, James A., Jr. (S)	Elkhart	Elkhart
Worley, Ansel C.	Fort Wayne	Allen
Worley, Henry L.	New Albany	Floyd
Worley, Joseph P.	Indianapolis	Marion
Worley, Richard H.	Indianapolis	Marion
Worth, C. Willard	Milroy	Rush
Wrege, Malcolm L.	Indianapolis	Marion
Wright, Cecil S.	Anderson	Madison
Wright, J. Wm., Jr.	Indianapolis	Marion
Wright, Wm. C.	Fort Wayne	Allen
Wunsch, Charles M.	Valparaiso	Lake
Wurster, Herbert C.	Mishawaka	St. Joseph
Wyatt, James L., III	Fort Wayne	Allen
Wygant, Marion D.	Westville	La Porte
Wynegar, David E.	Richmond	Wayne-Union
Wynn, Justice F.	Evansville	Vanderburgh
Wyttenbach, John E.	Indianapolis	Marion

Y

Yacko, Michael L.	Indianapolis	Marion
Yadon, Raymond E.	Columbus	Bartholomew-Brown
Yale, Charles A.	Fairmount	Grant
Yanson, Mannfredo R. S.	Duarte, Calif.	Lake
Yast, Charles J.	Gary	Lake
Yegerlehner, Roscoe S.	Kentland	Jasper-Newton
Yingling, Robert J.	Indianapolis	Marion
Yocum, Paul S., Sr.	Gary	Lake
Yocum, Paul S., Jr.	Gary	Lake
Yocum, William S.	Gary	Lake
Yoder, Albert C. (S)	Goshen	Elkhart
Yoder, C. Richard	Elkhart	Elkhart
Yoder, Dewey D.	Pierceton	Whitley
Yoder, Richard P.	Bluffton	Wells
Young, C. Curtis	Evansville	Vanderburgh
Young, George M.	Gary	Lake
Young, Gerald S.	Muncie	Delaware-Blackford
Young, James W.	Indianapolis	Marion
Young, John E.	Indianapolis	Marion
Young, John M.	Indianapolis	Marion
Young, John T.	Indianapolis	Marion
Young, Joseph	Greenwood	Johnson
Young, Ralph H.	Goshen	Elkhart
Young, Robert G.	Marion	Grant
Young, Robert L.	Gary	Lake
Yunker, Philip E.	Howe	LaGrange

Z

Zalac, Donald A.	Michigan City	La Porte
Zallen, Stanley G.	East Chicago	Lake
Zaring, Byron K.	Columbus	Bartholomew-Brown
Zehr, Noah (S)	Fort Wayne	Allen
Zeiger, Irvin L.	South Bend	St. Joseph
Zeitler, Philip S.	Elkhart	St. Joseph
Zell, Evertson H.	Indianapolis	Marion
Zeps, E. Frances	Richmond	Wayne-Union
Zerfas, Charles P. A.	Beech Grove	Marion
Zerfas, Leon G.	Camby	Marion
Zerfas, Phyllis K.	Indianapolis	Marion
Zeier, Francis G.	Evansville	Vanderburgh
Zierer, Reuben O.	Rockville	Parke-Vermillion
Zimmer, Henry J.	Mishawaka	St. Joseph
Zimmerman, Harold	Evansville	Vanderburgh
Zimmerman, Wm. H.	Syracuse	Elkhart
Zink, Robert O.	Madison	Jefferson-Switzerland
Ziperman, H. Haskell	APO 757, New York, N. Y.	Marion
Ziss, Robert C.	Evansville	Vanderburgh
Zore, Joseph J.	Indianapolis	Marion
Zucker, Edward	Gary	Lake
Zweig, Elmer S.	Fort Wayne	Allen
Zwerner, Paul F.	Terre Haute	Vigo
Zwick, Harold F.	Decatur	Adams
Zwickel, Ralph E.	Evansville	Vanderburgh

ROSTER OF MEMBERS BY COUNTIES

Physicians are listed in the counties in which they hold membership.

(Paid-up members of the Indiana State Medical Association as of May 1, 1962.)

ADAMS COUNTY

Berne

Beaver, Norman E.....165 W. Water St.
Bixler, James A.....165 N. Jefferson St.
Boze, Robert L.....265 W. Water St.
Luginbill, Howard M.....165 S. Jefferson St.

Decatur

Burk, James M.....115 N. Third St.
Carroll, John C.....226 S. Second St.
Freeby, C. William.....227 S. Second St.
Girod, Arthur H.....203 N. Twelfth St.
Kohne, Gerald J.....134 S. Third St.
Parrish, Richard K.....238 S. Second St.
Reppert, Roland L.....222 S. Second St.
Rich, Norval.....415 W. Madison St.
Terveer, John B.....222 S. Second St.
Zwick, Harold F.....227 S. Second St.

ALLEN COUNTY

Fort Wayne

A

Adams, E. Wade.....3124 E. State St.
Ahlbrand, Roland C.....1417 N. Anthony Blvd.
Aiken, Arthur F.....1923 E. State Blvd.
Aiken, Nevin E.....1923 E. State Blvd.
Anderson, Ernest.....4349 S. Anthony
Andrew, Jerald L.....2423 S. Calhoun St.
Arata, Justin E.....3124 E. State St.

B

Bahr, Robert E.....533 W. Washington St.
Bailey, Paul P.....206 Medical Center Bldg.
Ball, John R.....320 Medical Center Bldg.
Ball, Margaret J.....4112 S. Harrison Blvd.
Baltes, Joseph H.....821 Broadway
Barch, John W.....1301 S. Harrison St.
Bash, Wallace E.....2902 Fairfield Ave.
Baumgartner, Jeraldine.....515½ W. Wayne St.
Beams, Ralph H.....715 Medical Center Bldg.
Beierlein, Karl M.....3124 E. State St.
Beights, Raymond S.....3310 E. State St.
Bergendahl, Emil H.....102 Medical Center Bldg.
Berghoff, James R.....306 E. Jefferson St.
Berghoff, Raymond J.....306 E. Jefferson St.
Beutler, Theodore V.....527 W. Berry St.
Billingsley, John S.....2902 Fairfield Ave.
Blichert, Peter A.....334 Medical Center Bldg.
Blosser, Howard V. (S)
1122 W. Washington Blvd.
Bolman, Ralph M.....717 Broadway
Bossard, John W.....115 Medical Center Bldg.
Bowers, Gah T.....1417 N. Anthony Blvd.
Bowers, Jesse W. (S).....418 Gettle Bldg.
Brandt, William E.....228 Medical Center Bldg.
Bridges, William L.....520 Medical Center Bldg.
Bromley, Luman W.....2730 E. State St.
Brosius, Robert H. W.....1603 Wells St.
Brown, Frederic W.....2609 Fairfield Ave.
Bryan, Franklin A.....512 Medical Center Bldg.
Brucker, Perry A.....403 Medical Center Bldg.
Buckner, George D.....1003 Fulton St.

C

Carlo, Ernest R.....2902 Fairfield Ave.
Cartwright, Emor L. (S).....3718 Hiawatha Blvd.
Chambers, Alan R.....601 W. Wayne
Chase, James A.....1635 Broadway
Clark, William R.....3622 S. Calhoun St.
Cochran, Harry A., Jr.....1301 S. Harrison St.
Conley, John E.....620 W. Berry St.
Connelly, Richard D.....810 Lake Ave.
Cooney, Charles J.....527 W. Berry St.
Cottrell, Robert F.....234 Medical Center Bldg.
Craig, Richard M.....2902 Fairfield Ave.
Culp, John E.....2902 Fairfield Ave.

D

Datzman, Richard C.....520 Medical Center Bldg.
Davidoff, Manuel A.....3610 Brooklyn Ave.
Ditton, Irvin W. (S).....1214 E. Wayne St.
Duemling, Arnold H.....6526 Upper Huntington Rd.
Dunstone, Harry C.....502 Medical Center Bldg.

E

Elston, Lynn W.....604 Medical Center Bldg.
Elston, Ralph W.....604 Medical Center Bldg.
Emenhiser, John L.....1411 Reed Rd.

F

Farquhar, John S.....4628 S. Calhoun St.
Ferguson, Arthur N.....2902 Fairfield Ave.
Fichman, Abraham M.....323 W. Berry St.
Flaherty, Robert A.....2902 Fairfield Ave.
Foy, Hayward W.....1747 Wells St.
Franke, Gordon R.....1202 E. State Blvd.
Frankhouser, Charles M. A.
520 Medical Center Bldg.
Fullam, Richard G.....234 Medical Center Bldg.

G

Garton, Harry W.....R. R. 6, Hamilton Rd.
Gastineau, David C.....520 Medical Center Bldg.
Gentile, Jonathan P.....2156 Fairfield Ave.
Gerding, William J.....2638 S. Anthony Blvd.
Gladstone, Naf H.....335 W. Berry St.
Glassley, Stephen H.....1923 E. State St.
Glock, Homer E. (S).....324 Medical Center Bldg.
Glock, Maurice E.....229 Medical Center Bldg.
Glock, Wayne R.....2609 Fairfield Ave.
Goebel, Carl W.....327 W. Creighton
Gould, John C.....2424 Fairfield Ave.
Graham, George M.....1301 S. Harrison St.
Graham, James C.....805 E. Creighton Ave.
Grant, Albert J.....4626 S. Calhoun St.
Green, Robert F.....324 W. Berry St.
Greenlee, Robert L.....1110 W. Washington Blvd.
Griest, Walter D.....3024 Fairfield Ave.
Griffith, Harold R.....520 Medical Center Bldg.

H

Hackett, Walter G.....6028 U. Huntington Rd.
Haffner, Herman G.....202 E. Jefferson St.
Haley, Alvin J.....533 W. Washington Blvd.
Hall, William R.....234 Medical Center Bldg.
Haller, Richard C.....3124 E. State St.
Hamilton, Emory D.....234 Medical Center Bldg.
Hamilton, George M.....1416 N. Anthony Blvd.
Harshman, Louis P.....Veterans Hospital
Harvey, Harry C.....406 W. Berry St.
Hasewinkle, August M.....2828 E. State Blvd.
Hastings, Warren C.....815 Ewing St.
Hattendorf, Anton P.....725 Medical Center Bldg.
Havens, Russell E.....228 Medical Center Bldg.
Hershberger, Philip G.....2609 Fairfield Ave.
Hickman, Donald M.....3408 N. Anthony Blvd.
Higgins, Kenneth E.....801 E. State St.

Hillery, Robert L. ..... 810 W. State Blvd.
Hipskind, Richard E. ..... 332 E. Pontiac
Hoffman, Arthur F. ..... 519 Medical Center Bldg.
Holsinger, Robert E. ..... 115 Medical Center Bldg.
Howe, Fordyce L. ..... 1525 Oxford St.
Humphreys, John L. ..... 1301 S. Harrison St.

I

Irmscher, George W. ..... 723 Fulton St.
Isenogle, Kenneth F. ..... 214 Medical Center Bldg.

J

Jackson, John F. ..... 519 Medical Center Bldg.
Johnston, Richard M. ..... 519 Medical Center Bldg.
Jontz, Joe G. ..... 3124 E. State St.
Juergens, Richard B. ..... R. R. 13, Lima Road
Jurgensen, Walter T. ..... 3415 Fairfield Ave.

K

Karol, Herbert J. ..... 324 Medical Center Bldg.
Kaufman, Julian R. ..... 229 W. Berry St.
Keck, Carleton A. ..... 2902 Fairfield Ave.
Kent, Richard N. ..... 731 Medical Center Bldg.
Keyes, Robert C. ..... 3714 S. Calhoun
Kidder, Orva T. ..... Irene Byron Hospital
Kimbrough, Robert F. ..... 2730 E. State St.
Kleifgen, William A. ..... 617 W. Washington Blvd.
Kleopfer, Ronald G. ..... 3124 E. State St.
Klooze, Kenneth W. ..... 3610 Brooklyn Ave.
Knight, Lewis W. ..... 3124 E. State St.
Krueger, John E. ..... 204 E. Suttenfield
Kruse, Edward H. (S) ..... 705 Lincoln Tower
Kruse, Walter E. ..... 410 McKinnie

L

Ladig, Donald S. ..... 337 E. Berry St.
Laker, Gene C. ..... 2407 Fairoak Dr.
Lampe, Elfred H. ..... 2902 Fairfield Ave.
Land, Francis L. ..... 4628 S. Calhoun
Laycock, Richard M. ..... 6642 St. Joe Road
Leming, Ben L. ..... 2902 Fairfield Ave.
Lenk, George G. ..... 1805 E. Washington St.
Lloyd, Robert P. ..... 723 Fulton St.
Logan, Richard S. ..... 3124 E. State St.
Lohman, Robert M. ..... 4017 S. Wayne St.
Lorman, James G. ..... 520 Medical Center Bldg.
Loudermilk, Jack L. ..... 520 Medical Center Bldg.
Lyon, William C. ..... 710 W. Wayne St.

M

Mackel, Frederick O. ..... 2609 Fairfield Ave.
Manning, George C. ..... 534 W. Berry St.
Marshall, Caesar L. ..... 438 E. Lewis St.
Mastrangelo, M. J. ..... 418 Medical Center Bldg.
McArdle, Edward G. ..... 2201 S. Calhoun St.
McCallister, John W. ..... 3124 E. State St.
McCoy, Roy R. ..... 3701 S. Harrison St.
McDowell, George A. ..... 215 Medical Center Bldg.
McEachern, Cecil G. ..... 2424 Fairfield Ave.
McKeeman, Donald H. ..... 633 W. Wayne St.
McKeeman, Leland S. ..... 302 Medical Center Bldg.
Mensch, James R. ..... 2828 E. State St.
Mercer, Samuel R. ..... 702 Medical Center Bldg.
Meyer, Herman A. ..... 1030 W. Wayne St.
Meyer, Theodore O. ..... 622 Medical Center Bldg.
Michaelis, Stephen C. ..... 3610 Brooklyn Ave.
Miller, Edward D. ..... 1402 E. State Blvd.
Miller, H. Paul ..... 2715 Broadway
Miller, Mahlon F. ..... 222 Medical Center Bldg.
Miller, Orval J. ..... 324 W. Berry St.
Miller, Richard H. ..... 511 W. Wayne St.
Miller, Robert B. ..... 3124 E. State St.
Miller, William J. ..... 2902 Fairfield Ave.
Moats, Carl F. ..... 4007 S. Wayne St.
Moats, George E. (S) ..... 615 E. Washington Blvd.
Moeller, Victor C. ..... 2424 Fairfield Ave.
Moravec, Arthur E. ..... 705 Lincoln Tower
Morey, Edwin E. ..... 2902 Fairfield Ave.
Mortenson, Leland J. ..... 3610 Brooklyn Ave.
Mueller, Lawrence W. ..... 533 W. Washington Blvd.
Murdock, Harvey L. (S) ..... 417 Medical Center Bldg.

N-O

Nill, John H. ..... 204 E. Suttenfield St.
Nolan, Gerald R. ..... 1626 Oxford St.
O'Brian, John F. ..... 1807 E. Washington Blvd.
O'Rourke, Carroll ..... 604 W. Berry St.
Oyer, John H. ..... 2609 Fairfield Ave.

P

Painter, Donald S. ..... 222 Medical Center Bldg.
Parker, Carey B. ..... 1105 S. Harrison St.
Parrot, Donald J. ..... 810 W. State St.
Pauly, Leonard R. ..... 2224 Springfield
Pearson, Huey L. ..... 1801 S. Hanna
Perrin, Kermit F. ..... 2701 S. Anthony Blvd.
Perry, Frederic G. ..... 2902 Fairfield Ave.
Phelps, William J. ..... 2828 E. State Blvd.
Pickett, Merle E. ..... 228 Medical Center Bldg.
Ponczek, Edward J. ..... 3418 S. Hanna
Popp, Milton F. ..... 606 Medical Center Bldg.
Powell, M. Jack ..... 730 W. Berry St.
Priddy, Marvin E. ..... 5010 Riviera Court

Q-R

Ray, Herbert A. (S) ..... 402 Medical Center Bldg.
Reed, John D. ..... 3124 E. State St.
Rissing, Walter J. ..... 229 W. Berry St.
Rockey, Noah A. (S) ..... 1224 E. State
Roser, Arthur J. ..... 617 W. Washington Blvd.
Rossiter, Dudley L. ..... 3629 S. Harrison
Rothberg, Maurice ..... 625 W. Berry St.
Rousseau, John W. ..... 3124 E. State St.

S

Sahlmann, Hans ..... 3418 S. Hanna
Salon, Harry W. ..... 535 W. Berry
Salon, Joel W. ..... 604 W. Wayne St.
Salon, Nathan L. ..... 604 W. Wayne St.
Sarver, Francis E. ..... 320 Medical Center Bldg.
Savage, Arthur R. ..... 302 W. Berry St.
Saylors, Rodger D. ..... R. R. #2
Schlademan, Karl R. ..... 520 Medical Center Bldg.
Schloss, Robert P. ..... 3504 Quimby Arcade
Schmidt, Eugene E. ..... 228 Medical Center Bldg.
Schmoll, Robert J. ..... 515 W. Wayne St.
Schneider, Louis A. ..... 730 W. Berry St.
Schoen, Frederic L. ..... 902 W. Wayne St.
Schubert, Jerome C. ..... 2154 Fairfield Ave.
Scoins, William H. ..... 1301 S. Harrison St.
Scott, H. Vaughn ..... 3718 Knoll Crest Dr.
Senseny, Eugene F. ..... 2902 Fairfield Ave.
Shaw, James E. ..... 3610 Brooklyn Ave.
Sherwood, Clarence E. ..... Irene Byron Hospital
Sherwood, J. Vincent ..... Irene Byron Hospital
Shinabery, Lawerence ..... 1850 Broadway
Short, John T. (S) ..... 2902 Fairfield Ave.
Sidell, James P. ..... 2424 Fairfield Ave.
Singer, Elmer C. (S) ..... 310 Medical Center Bldg.
Smith, Philip L. ..... 2902 Fairfield Ave.
Smith, Richard B. ..... 3124 E. State St.
Smith, Roger C. ..... 3124 E. State St.
Snyderman, Sanford C. ..... 102 Medical Center Bldg.
Somers, Gerald H. ..... 3610 Brooklyn Ave.
Spencer, C. Herbert. ..... 519 Medical Center Bldg.
Stanley, Robert G. ..... 3415 S. Fairfield Ave.
Stauffer, Richard C. ..... 2730 E. State St.
Steigmeyer, David J. ..... 3124 E. State St.
Stier, Paul L. ..... 721 Broadway
Stucky, Jerry L. ..... 5010 Riviera Court
Sullivan, Robert E. ..... 2424 Fairfield Ave.

T

Taylor, Robert G. ..... 2902 Fairfield Ave.
Tennant, David L. ..... 1832 S. Calhoun
Terrill, Richard W. ..... 446 W. Pontiac

Thimlar, James W. (S).....602 E. Lewis
Tomusk, August N.....418 Medical Center Bldg.
Trier, Herbert P.....612 Medical Center Bldg.

U

Ungemach, Willo F.....332 Pontiac

V-W

Vogel, Lloyd A., Jr.....4628 S. Calhoun
Walker, Floyd B.....3505 S. Monroe
Wallace, Collins R.....4188 Buesching Dr.
Ward, Gerald F.....3124 E. State St.
Ward, Paula B.....4420 Highwood
Warfield, Chester H.....730 W. Berry St.
Weber, John R.....710 W. Wayne St.
Wick, Alfred A.....2320 Springfield Ave.
Williams, A. Berniece.....801 E. State Blvd.
Wilson, Leslie.....Veterans Hospital
Wilson, Roland B.....1207 S. Lafayette
Worley, Ansel C.....317 Medical Center Bldg.
Wright, William C.....621 Medical Center Bldg.
Wyatt, James L., III.....310 E. Washington St.

X-Y-Z

Zehr, Noah (S).....301 W. Creighton
Zweig, Elmer S.....344 W. Berry St.

Emme, Richard W.....Harlan
Harless, Fred.....Monroeville

New Haven

Dahling, Clemens W.....Dahling Bldg.
Dahling, Fred W.....Dahling Bldg.
Emenhiser, Donald C.....608 State St.
Hoetzer, Eldore M.....502 Henry
Stumpf, Edwin E.....716 Broadway
Wade, Reynolds W.....1018 Bell Ave.

Miller, Kenneth D.....Woodburn
Moser, Edward (S).....Woodburn

Helmer, Frederic A.
2057 Snowhill Dr., Cincinnati, Ohio
Philbert, Richard N.
92 Avalon Dr., Daly City, Calif.
Prentiss, Nelson H.....V. A. Hospital, Oteen, N. C.
Schellhouse, Earl M.
V.A. Hospital, Jefferson Barracks, St. Louis, Mo.
Voorhees, Robert J...601 S. Brentwod, Clayton, Mo.

BARTHOLOMEW-BROWN COUNTIES

Columbus

Able, Walter .....2760 25th St.
Adler, David L.....Bartholomew County Hospital
Beggs, Lowell F.....832 Washington St.
Clay, Eleanor.....2739 Central Ave.
Daugherty, Forest D.....2438 Cottage Ave.
Davis, Marvin R.....908 Washington St.
Dugan, Thomas.....Doctor's Park
Echsner, Herman J.....Doctor's Park
Fisher, Walter S.....422 Ninth St.
Gammell, Lindley L.....602 22nd St.
Hart, Robert B.....712 Washington St.
Hawes, James K. (S).....P. O. Box 308
Hawes, Marvin E.....522 Seventh St.
Henry, Alvin L.....621 Franklin St.
Jacobs, E. Robert.....2760 25th St.
Knotts, Halleck S.....1813 25th St.
Krueger, Robert B.....2739 Central Ave.
Macy, George W.....2760 25th St.
Marr, Griffith .....R. R. 1
McCullough, Henry G.....R. R. 4
Mohler, Floyd W.....2739 Central Ave.
Norton, Harold J.....909 Pearl St.
O'Bryan, Richard B.....2739 Central Ave.
Overshiner, Lyman (S).....503 California
Ranck, Benjamin A. .....2438 Cottage Ave.
Rau, Charles A.....2438 Cottage Ave.
Reid, Robert M.....2225 Central Ave.
Richmond, Harold W.....Cummins Engine Co., Inc.
Ryan, William J.....911 Washington St.
Schmitt, Richard K.....423 Ninth St.
Sigmund, William B.....2355 Central Ave.
Snapp, Richard A.....2225 Central Ave.
Teal, Dorothy D.....728 Franklin St.
Warshaw, Seymour.....2760 25th Street
Weinland, George C.....R. R. 5, Harrison Lake
Williams, Earl K...Bartholomew County Hospital
Williams, Everett W.....2225 Central Ave.
Yadon, Raymond E..Bartholomew County Hospital
Zaring, Byron K.....718 Washington St.

Schneider, Kenneth D.....Nashville
Seibel, Robert M.....Nashville

BENTON COUNTY

Taylor, Wade H. (S).....Ambia
Miller, Dan T. (S).....Fowler
Turley, Verne L.....Fowler
McCabe, James E. (S)..Soldiers Home, Lafayette
McKinney, Donald L.....Otterbein
Scheurich, Virgil.....Oxford

BLACKFORD COUNTY

(See Delaware-Blackford)

BOONE COUNTY

Schaaf, Alvin D.....Jamestown

Lebanon

Beck, Herma A. (S).....Boone County Bank Bldg.
Coons, John D.....Boone County Bank Bldg.
Coons, Ritchie.....303 W. Washington St.
Grigsby, Hardin B.....916 N. East St.
Headley, Lloyd M.....1111 N. Lebanon St.
Honan, Paul R.....1720 N. Lebanon St.
Kern, Clarence G.....1720 N. Lebanon St.
Lenox, Jack .....303 W. Washington St.
Porter, Jack.....209 W. North St.
Weddle, Charles O.....905 N. Lebanon St.
Wiseheart, Robert H.....905 N. Lebanon St.

Bassett, Margaret A.....Thorntown
Gregg, Edwin E.....Thorntown
Bailey, Lawrence S.....Zionsville
Harvey, Ralph J. (S).....Zionsville
Lovett, Harvey D.....Whitestown

BROWN COUNTY

(See Bartholomew-Brown)

CARROLL COUNTY

Kennedy, Eva N. (S).....Camden
Wise, Charles L.....Camden

Delphi

Baker, Eldon E.....109 S. Union
Crampton, Charles C. (S).....115 E. Main St.
Petry, T. Neal.....111 E. Franklin St.
Seese, Robert M.....101 W. North St.
Wagoner, George W.....Front & Union Sts.

Adams, Max R.....Flora
McLaughlin, James R.....Flora

CASS COUNTY

Dutchess, C. Toney.....Galveston

Logansport

Adamski, Michael S.....408 North St.
Bailey, Earl W.....212 Fifth St.
Ballard, Charles A (S).....325½ E. Market St.
Bean, Joseph S.....Memorial Hospital
Burnett, Paul C.....Logansport State Hosp.
Cheng, Sylvia F.....Logansport State Hosp.
Chu, Johnson C. S.....Logansport State Hosp.
Cobb, Clarence M.....Memorial Hosp.
Davis, John C. (S).....Masonic Temple
Eckert, Russell A.....1101 Michigan Ave.
Fitzgerald, Brice E.....126 Fourth St.
Fogel, Ernest.....Logansport State Hosp.
Gatzimos, Christos D.....1101 Michigan Ave.
Glendening, Richard L.....420 A High St.
Hall, Bernard R.....422 High St.
Harrington, James F.....1001 E. Broadway
Hedde, Eugene L.....211 S. Third St.
Hillis, Lowell J.....203 S. Third St.
Hochhalter, Marian.....86 9th St.
Holloway, William A. (S).....200 Eel River Ave.
Horning, Richard R.....Logansport State Hospital
Jewell, Earl B. (S).....3019 S. Pennsylvania St.
Jones, J. Carl.....422 North St.
King, Jay M.....201 S. Third St.
Mackey, Colonel G. (S).Logansport State Hospital
Maschmeyer, Robert H.....Logansport State Hosp.
Morrical, Russell J.....212 Fifth St.
Parker, E. Camille.....2500 E. Broadway
Parker, Francis W., Jr.....2500 E. Broadway
Pfuetze, Max.....408 North St.
Phipps, Elwood B.....Logansport State Hosp.
Schenck, Foss (S).....Logansport State Hosp.
Terbush, Edward L.....216 9th St.
Viney, Charles L.....Masonic Temple
Wilson, Paul H.....422 North St.
Winter, Donald K.....422 North St.

Newcomb, William K.....Royal Center
Flanagan, Estle P. (S).....Walton
Lybrook, Daniel E. (S).....Young America

CLARK COUNTY

Goodman, Eli.....Charlestown
Jones, David H.....Charlestown
Marshall, Thomas J. (S).....Charlestown
Shina, Heskel S.....Charlestown
Mudd, Joseph P.....Clarksville
Willner, Alan.....Clarksville
Wolverton, George M.....Clarksville
Carr, Joseph H.....Henryville
Greene, William R.....Henryville

Jeffersonville

Adair, Samuel L.....201 E. Market
Baldwin, John H. (S).....425 Meigs Ave.
Bizer, Mier A.....119 Forest Oak Park
Bruner, Ralph W. (S).....437 Spring St.
Buehler, George M.....431 Locust St.
Byrd, Ryland P.....210 Sparks Ave.
Carlberg, Dale L.....226 E. Maple
Carney, Joel T. (S).....347 Spring St.
Clark, William B., Jr.....437 Spring St.
Corrao, Thomas J.....435 Spring St.
Dare, Lee A.....209 E. Maple St.
Forsee, Norman E.....211 E. Market St.
Havens, A. Lyle.....432 Wall St.
Havens, Thomas R.....432 Wall St.
Huoni, John S...1405 Youngstown Shopping Center
Isler, Nathaniel C.....519 Spring St.
Johnson, Jerome M.....1426 Gateway Plaza
McKechnie, Robert K.....432 Wall St.
Reed, Edsel S.....Clark Co. Memorial Hosp.
Reeder, Henry H.....Jeffersonville
Roby, Alma L.....201 E. Market St.
Shaw, Houston W.....435 Spring St.
Weems, Mallory P.....404 Spring St.
Witt, William R.....Medical Center
Wolf, Richard S.....Medical Center

Meyer, Claude J.....Sellersburg
Regan, George L.....Sellersburg
Sturgis, Donald G.....Sellersburg

CLAY COUNTY

Brazil

Farid, Rahim S.....111 N. Walnut St.
Garvin, Donald B.....111 N. Walnut St.
Maurer, J. Frank.....111 N. Walnut St.
Maurer, Robert M.....111 N. Walnut St.
McCormick, Wilbur C.....R. R. No. 2
Mehne, Richard G.....1½ E. National Ave.
Shattuck, John C.....1½ E. National Ave.
Weaver, Timothy M. (S).....Brazil Trust Bldg.
Webster, Robert K.....28 N. Franklin St.
Wood, Opal L.....111 N. Walnut St.

Moon, Charles E.....Center Point
Bond, Walter C.....Clay City
Buell, Forrest R.....Clay City

CLINTON COUNTY

Waits, Chester L.....Colfax

Frankfort

Applegate, Albert E.....1303 S. Jackson St.
Beardsley, Frank A.....400 Kentwood Dr.
Carrel, Francis E.....209 S. Columbia St.
Dykhuizen, Theodore A.....201 W. Walnut St.
Erdel, Milton W.....2 E. White St.
Flora, Fred W.....1256 S. Jackson St.
Hammersley, George K.....361 E. Clinton St.
Hedgcock, Robert A.....259 E. Clinton St.
Stout, Harry T.....1256 S. Jackson St.
Van Kirk, Paul P.....1252 S. Jackson St.
Work, Bruce A.....306 Peoples Life Bldg.

Bush, Charles E.....Kirklin
Carlyle, Ivan E. (S).....Michigantown
Grove, Robert H.....Rossville
Ketcham, John S. (S).....Rossville
Weller, Ralph D.....Rossville

Holmes, Claude D. (S)
329 Romano St., Coral Gables, Fla.
Work, Bruce A., Jr.....USNR 638-126, Navy 3835
Box 2, FPO, San Francisco, Calif.

CRAWFORD COUNTY

(See **Harrison-Crawford**)

DAVIESS-MARTIN COUNTIES

Rohrer, James R.....Elnora

Loogootee

Chattin, Robert E.....102 Wood
Lett, Emory B.....408 E. Main

Sears, Don.....Odon

Washington

Arthur, Nora M. (S).....R. R. 4
Blazey, Arthur G.....7 E. Walnut St.
Chattin, Vance J.....514 E. Main St.
Farris, John J.....514 E. Main St.

Fox, C. Philip.....305 Peoples Bank Bldg.
Lindsay, Hamlin B.....511 E. Main St.
McKittrick, Jack.....Peoples Bank Bldg.
McNaughton, Lawrence M.....400 E. Hefron St.
Norton, Horace O.....511 E. Hefron St.
Rang, A. A. (S).....211 N. E. 9th St.
Rang, Robert H.....1312 Bedford Rd.
Ross, Glenn E.....1307 Bedford Road
Schafer, William C.....1312 Bedford Rd.
Schroeder, Henry R.....101 N. E. First St.
Seat, Marshall H.....2 East Walnut St.
Smoot, Emory B.....507 E. Main St.

DEARBORN-OHIO COUNTIES

Aurora

Baker, Leslie M.....501 Fourth St.
Jackson, John K.....223 Mechanic St.
Olcott, Charles W.....203 Main St.
Treon, James F. (S).....505 Fifth St.

McNeely, Matthew J.....Dillsboro
Elliott, John C. (S).....Guilford

Lawrenceburg

Aldred, Allen W.....370 Bielby Road
Conrad, Henry W.....370 Bielby Road
Fagaly, William J.....238 Short St.
Frable, Frank L.....370 Bielby Road
Houston, Fred D. .....30 W. High St.
Hunter, Lowell G.....370 Bielby Road
Lindgren, Ivan T.....370 Bielby Road
Morrison, George G., Jr.....209 Fourth St.
Pfeifer, James M.....319 Front St.
Streck, Francis A.....326 Walnut St.
Weisenberger, Brockton L.....370 Bielby Road

Fessler, Gordon S.....Rising Sun
Paras, Jose L.....Rising Sun
Fletcher, Charles F. (S).....Sunman

DECATUR COUNTY

Tremain, Milton A. (S).....Adams

Greensburg

Acher, Robert P.....221 E. Washington St.
Callaghan, Winship C.....304 Bates Bldg.
Dickson, Dale D.....Bates Bldg.
Miller, James C.....205 Bates Bldg.
Morrison, James T.....207 N. Franklin
Overpeck, Charles.....Murphy Bldg.
Shaffer, William R.....214 N. Franklin
Walker, Louis.....215 N. Franklin

Porter, Edward A. (S).....Westport
Porter, Robert A.....Westport

DE KALB COUNTY

Auburn

Covell, Harry M.....127 W. Seventh St.
Geisinger, Lewis N. (S).....805 S. Indiana Ave.
Hines, Archie V. .....401 S. Main St.
Hines, John H.....403 S. Main St.
Hippensteel, Harland V.....208 W. Seventh St.
Nugen, Harold.....223 W. Seventh St.
Rogers, Evered E.....212 W. Sixth St.
Sanders, Jesse A. (S).....1007 S. Main St.
Souder, Bonnell M. (S).....206 W. Seventh
Wills, Max .....347 W. Seventh St.

Shultz, Clifford .....Butler
Weirich, Charles I.....Butler

Garrett

Carpenter, Ramesh S.....514 S. Randolph
Jinnings, Loren E.....200 S. Randolph
Kantzer, Floyd B.....200 S. Randolph
Nason, Robert A.....123 E. King
Novy, Charles A.....200 S. Randolph
Reynolds, R. Perry.....215 S. Randolph

Coleman, Floyd B.....Waterloo
Showalter, John P.....Waterloo

DELAWARE-BLACKFORD COUNTIES

Brown, Stewart D.....Albany
Puterbaugh, Karl E.....Albany
Hurley, John R.....Daleville
Tucker, Oral A.....Daleville
Ko, Richard C. B.....Gaston

Hartford City

Dodds, James U.....227 W. Main St.
Dudgeon, Charles A.....720 N. Spring
Jackson, Dean B.....401 W. Washington St.
Owsley, Guy A.....214 N. High St.
Parks, George O.....720 N. Spring St.
Weldy, Bryce P.....227 W. Franklin St.
Werry, Leslie E.....218 W. Washington St.
Wierzalis, Edward F.....Rural Loan Bldg.

Burns, Paul E.....Montpelier

Muncie

Adams, Julia L.....Ball State Teachers College
Adams, William B.....Ball Memorial Hosp.
Alvey, Charles R.....217 S. Cherry St.
Ball, Clay A. (S).....303 W. Adams St.
Ball, Phillip .....2620 W. Jackson St.
Benken, Lawrence D.....2423 W. Jackson
Bergwall, Warren L.....223 Tillotson Ave.
Bibler, Henry E.....311 W. Adams St.
Botkin, Charles (S).....508 W. Jackson St.
Botkin, Clyde G.....508 W. Jackson St.
Botkin, Thomas.....400 White River Blvd.
Brown, Leland G.....412 White River Blvd.
Brown, Thomas M.....412 White River Blvd.
Burwell, Stanley W.....424 W. Jackson St.
Butterfield, Robert M.....315 W. Jackson St.
Butz, Ralph O.....1525 W. Jackson St.
Chun, Wallace H.....315 S. Jefferson St.
Clevenger, Joseph H.....424 W. Jackson St.
Cochran, Robert B.....1111 W. Jackson St.
Collins, Margaret C.....Ball Memorial Hospital
Covalt, Wendell E.....2724 W. North St.
Cooper, John.....2327 Madison St.
Cullison, John L.....2724 W. North St.
Cure, Elmer T.....105 Western Reserve Bldg.
Davis, Edgar C. (S)....203 Western Reserve Bldg.
Deutsch, William.....406 White River Blvd.
Dunn, Ferrell W. (S).....1417 Wheeling Ave.
Dunning, Thomas W.....400½ White River Blvd.
Funk, John W.....217 W. Charles St.
Galliher, Marjorie J.....410 White River Blvd.
Garling, Luvern C.....521 S. Tillotson
Geckler, Charles E.....205 Western Reserve Bldg.
Gibson, Robert K.....806 West Jackson St.
Greiber, Marvin F.....420 W. Washington St.
Gustafson, Milton.....808 W. Jackson St.
Hall, Robert S.....514 Wysor Bldg.
Hayes, Theodore R.....210 S. High St.
Henderson, Ramon A.....806 W. Jackson St.
High, Ralph L.....420 W. Washington St.
Holmes, John L.....412 White River Blvd.
Hostetter, Irwin S.....115 N. Cherry St.
Imhof, Joseph D.....320 W. Adams St.

Kalker, Morton .....Ball Memorial Hospital
Kammer, Grace C.....1005 W. Parkway Dr.
Kammer, Walter F.....420 W. Washington St.
Kirshman, Forrest E.....211 S. High St.
Koss, K. William.....1600 W. Jackson St.
Kress, James W.....1111 W. Jackson St.
Lowry, Donald J.....420 W. Washington St.
McClintock, James A.....316 W. Adams St.
McCoy, George E.....806 W. Jackson St.
McDowell, Fletcher W.....315 S. Jefferson St.
Molloy, William J. (S).....619 E. Charles St.
Montgomery, Lall G.....Ball Memorial Hosp.
Moore, Thomas C. .....110 N. Cherry St.
Moore, Will C. (S).....110 N. Cherry St.
Morris, Jean W.....247 Johnson Bldg.
Nelson, Harold E.....424 W. Jackson St.
Owens, Thomas R. (S) 202 Western Reserve Bldg.
Peacock, Robert C.....2724 W. North St.
Pippenger, Joseph I.....310 W. Jackson St.
Pippenger, Wayne G...Ball State Teachers College
Quick, William J.....314 E. Washington St.
Rivers, Glynn A.....625 W. Adams St.
Schoenhals, Charles E.....424 W. Jackson St.
Schulhof, Maurice G.....420 W. Washington St.
Smith, James S.....501 Kirby
Speck, Carlson R.....Ball Memorial Hospital
Steele, Frank M.....420 W. Washington St.
Stibbins, Warren.....2605 Wheeling Ave.
Stout, Francis E.....2423 W. Jackson St.
Taylor, Donald R.....Ball Memorial Hosp.
Taylor, James A.....Delco Remy Plant
Tharp, Donald W.....402 W. Jackson St.
Tobe, Robert.....412 White River Blvd.
Tomlin, Hugh M.....420 W. Washington St.
Venis, Kemper N.....108 N. Liberty St.
Voss, Gert .....420 W. Washington St.
Walker, Jack M.....412 White River Blvd.
Young, Gerald S.....316 W. Jackson St.

Hinchman, Jean F.....Parker
Hill, Robert E.....Yorktown
Moss, Mavor J.....Yorktown
Hammond, Keith.....758 S. Beach Blvd., Waveland, Miss.
Hill, Howard E.....P. O. Box 2056, St. Thomas, U. S. Virgin Islands

DUBOIS COUNTY

Barrow, John H. .....Dale
Backer, Henry G.....Ferdinand

Huntingburg

Amini, Sohrab.....521 Fourth St.
Bretz, John M.....302 Fourth St.
Craig, Harry L.....409 Van Buren
Scales, Alfred B.....407 Van Buren
Scales, Allen D.....409 Van Buren
Steinkamp, Emil F. (S).....302 Walnut St.
Stork, Harvey K.....530 Fourth St.
Williams, Fielding P.....215 W. Walnut St.

Jasper

Beaven, John B.....111 Central Bldg.
Blessinger, Paul J.....325 E. Sixth St.
Eckerle, John E.....711 Clay St.
Gootee, Francis H.....501 Clay St.
Gootee, Thomas H.....501 Clay St.
Heck, Martin C.....801 Newton
Held, George A.....716 W. Ninth St.
Klamer, Charles H.....715 MacArthur St.
Lukemeyer, St. John.....109 W. 12th St.
Ploetner, Edward J.....201 W. Sixth St.
Salb, John P.....106 Metzger Bldg.
Salb, Leo A. (S).....301 E. Sixth St.
Singer, Paul J.....116 E. Seventh St.
Wagner, Arthur L.....115 E. Ninth St.

ELKHART COUNTY

Horswell, Richard G.....Bristol
Neidballa, Edward G.....Bristol

Elkhart

Arlook, Theodore D.....912 W. Franklin St.
Atwood, William H. .....405 S. Second St.
Bender, Robert L.....411 S. Third St.
Benson, James E.....405 S. Second St.
Billings, Elmer R.....405 S. Third St.
Bloom, George R.....506 S. Second St.
Boling, Richard.....214 W. Marion St.
Bowdoin, George E.....515 S. Second St.
Campbell, Patrick B.....605 Oakland Ave.
Classen, Pete R. C.....4112 S. Main St.
Compton, Walter A. .....2225 Greenleaf Blvd.
Conklin, Raymond L...Miles-Ames Research Labs.
Cormican, Herbert L.....413 W. Franklin St.
Crandall, Lathan A. Miles-Ames Research Laboratory
Dovey, Edward G.....513 Oakland Ave.
Echeverria, Rodolfo E.....405 S. Second St.
Elliott, Thomas A.....405 S. Second St.
Finfrock, James D.....811 Laurel St.
Fleming, Claude F. (S).....217 W. Jefferson St.
Futterknecht, James O.....405 S. Second St.
Ganser, Ralph V.....405 S. Second St.
Gattman, George B.....405 S. Second St.
Graber, Virgil R.....1400 Hudson St.
Gray, Mary Case.....518 W. Franklin St.
Hannah, Jack W.....1906 E. Jackson Blvd.
Harris, Neil .....307 S. Seventh St.
Heminway, Norman L..Miles-Ames Research Labs.
Hurley, James W.....405 S. Second St.
Ivy, John H.....405 S. Second St.
Jones, Robert B. .....215 W. Lexington St.
Keating, John U.....224 W. High St.
Kesim, Mufit .....317 W. Lusher Ave.
Kielton, Melvyn .....319 W. Lusher Ave.
Kintner, Burton E.....506 S. Second St.
Kistner, Arthur W.....400 Equity Bldg.
Koehler, Elmer G.....416 W. Lexington Ave.
Krause, Friedrich .....4112 S. Main St.
Lundt, Milo O.....521 S. Second St.
Luther, William C.....Ames Company, Inc.
McArt, Bruce A.....221 W. Jefferson
Marks, George A.....413 W. Franklin St.
Martin, Paul H.....313 N. Second St.
Mendez, Carlos.....116 W. Marion St.
Middleton, Ramona J.....1400 Hudson St.
Miller, Galen R.....403 S. Ninth St.
Miller, Hugh A.....819 McNaughton Ave.
Miller, Samuel T. (S).....506 S. Second St.
Mininger, Edward P.....413 W. Franklin St.
Mishkin, Irving.....209 S. Second St.
Norris, Allen A. (S).....401 W. Marion St.
Paff, William A.....115 S. Third St.
Paine, George E.....329 Meisner Ave.
Pancost, Vernon K.....1000 W. Marion St.
Parshall, Dale B.....133 W. Lusher Ave.
Patrick, Glenn B.....427 S. Second St.
Rouen, Robert.....114 Monger Bldg.
Rupe, Lloyd O.....211 S. Fifth St.
Schlosser, Herbert C.....116 W. Marion St.
Sears, Murray M. (S).....304 Equity Bldg.
Smucker, Ernest E.....112 S. Fifth St.
Sobol, Z. W.....405 S. Second St.
Spray, Page E.....316 S. Fourth St.
Stauffer, Walter A. (S).....701 Strong Ave.
Stubbins, William M.....412 S. Second St.
Swank, Lucretia R.....1600 E. Jackson Blvd.
Swihart, Danny D. .....506 S. Second St.
Swihart, Homer R.....1200 W. Marion St.
Wilson, Orley E.....217 N. Main St.
Work, James A., Jr. (S).....406 S. Second St.
Yoder, C. Richard.....603 Oakland

Goshen

Amstutz, Henry C.....112 W. High Park Ave.
Bartholomew, Mary L.....317 E. Lincoln
Bender, John M.....112 W. High Park Ave.
Bigler, Frederick W.....314 S. Fifth St.
Bosler, Howard A.....214 Waterford Road
Bowser, Philip G.....107 S. Fifth St.
Chandler, Leon H.....43 Shoots Bldg.
Hostetler, Carl M.....304 E. Lincoln
Kaufman, Lillie S. .....901 Mervin Ave.
Kennedy, Myron S.....314 S. Fifth St.
Krabill, Willard S.....112 W. High Park Ave.
Martin, Floyd S.....127 E. Lincoln
Quilty, Thomas J.....112 E. Madison St.
Simmons, Lloyd H.....208 E. Lincoln
Troyer, Dana.....122 E. Clinton St.
Troyer, George W.....314 E. Lincoln Ave.
Turner, John P.....115 E. Washington St.
Wagner, David G.....307 S. Seventh St.
Westfall, George S.....214 E. Lincoln St.
Yoder, Albert C. (S).....816 S. Sixth St.
Young, Ralph H.....113 E. Madison

Massanari, Walter S.....Millersburg
Miller, Donald G.....Middlebury
Teters, Melvin S. (S) .....Middlebury
Rheinheimer, Floyd L.....Milford

Nappanee

Kendall, Forest M.....252 W. Market St.
Price, Douglas W.....162 E. Market St.
Roose, Lisle W.....357 N. Nappanee
Slabaugh, Jancy S. (S).....111 N. Main St.

De Fries, John J.....New Paris
Clark, Jack P.....303 S. Hunnington, Syracuse
Craig, Robert A.....P. O. Box 607, Syracuse
Fosbrink, Ephraim L....107 W. Main St., Syracuse
Zimmerman, William H.....R. R. No. 2, Syracuse
Abel, Robert .....Wakarusa
Guttman, John B.....Wakarusa

Todd, David D. (S)
5835 Beaumont Ave., La Jolla, Calif.

FAYETTE-FRANKLIN COUNTIES

Brookville

Foreman, Walter A.....617 Main St.
Peters, Elmer E.....830 Main St.
Seal, Perry F.....901 Main St.
Smith, Herbert N.....812 Main St.

Connersville

Dale, Maxwell H.....818 Grand Ave.
Ellis, George M.....108 E. 10th St.
Gregg, Albert F.....124 E. Sixth St.
Hudson, Arlington M.....321 W. 20th
Kemp, William A.....122 W. Seventh St.
Kerrigan, William F.....718 Central Ave.
Lockhart, Jack M.....707 W. Third St.
Mountain, Francis B.....930 Central Ave.
Neukamp, Frank H.....707 W. Third St.
Sanders, Bertram W.....930 Central Ave.
Steinem, Joseph L.....812 Grand Ave.
Watterson, Gerald T.....1910 Virginia Ave.
Winklepleck, A. M.....R. R. #6

Poston, Clement L.....R. R. 2, Laurel

FLOYD COUNTY

Byrn, Howard W. (S).....Boswell
Engleman, Harry K. (S).....Georgetown

New Albany

Baker, Avey M.....811 E. Spring St.
Baxter, Samuel M.....1201 E. Spring St.
Bickers, Everett E.....3541 Paoli Pike
Brown, Kenneth H.....410 E. Spring St.
Buchman, Marshall H.....1824 State St.
Cannon, Daniel H.....1203 E. Spring St.
Davis, Parvin M.....601 E. Spring St.
Edwards, William F.....356 Vincennes St.
Garner, William H., Jr.....919 E. Spring St.
Garner, William H., Sr. .....919 E. Spring St.
Gentile, John P.....101 Adams St.
Geyer, Joseph H.....Silvercrest Sanitarium
Harris, Robert W.....2652 Charlestown Rd.
Hauss, Augustus P. (S).....212 Elsby Bldg.
Hess, Paul P.....Floyd Co. Bank Bldg.
Higgins, John R.....700 E. Spring St.
LaFollette, Donald R.....1000 E. Spring St.
LaFollette, Robert E.....1000 E. Spring St.
McCullough, James Y.....700 E. Spring St.
May, William D.....Silvercrest Sanitarium
Nedelkoff, Bogdan.....R. R. No. 2, Box 500H
Paris, John M.....602 E. Spring St.
Pierce, Gene S.....1696 Garretson Lane
Potts, Robert E.....1201 E. Spring St.
Robertson, Addis N.....820 E. Spring St.
Robinson, Nan.....601 E. Spring St.
Shelton, Clyde F.....601 E. Spring St.
Sloan, Herbert P.....1207 E. Spring St.
Sonne, Irvin S., Jr.....1850 State St.
Streepey, Jefferson I.....1102 E. Spring St.
Tyler, Frank T. (S).....Hausfeldt Lane
Voyles, Harry E. .....213 Elsby Bldg.
Wallace, Elmer L.....1516 State St.
Weaver, William W.....1104 E. Spring St.
Wolfe, Morton F.....1679 Terry Lane
Wolfe, Nelson.....1117 E. Spring St.
Worley, Henry L.....1104 E. Spring St.

Wohlfeld, Gerald M.....440 N. Winona St.,
Indianapolis 2

FOUNTAIN-WARREN COUNTIES

Attica

Fisher, John E.....217 S. Perry St.
Maris, Lee J. .....201 Brady
Petrich, Peter R.....401 S. Perry St.
Quiambao, Hector S.....401 S. Perry St.
Raymundo, Vivencio F.....401 S. Perry St.

Hoffman, Max N.....Covington
Humphrey, Edward M.
Olin Mathieson Corp., Covington
Stephens, Lowell R.....Covington
Suzuki, Tsutomu T.....Covington
Furr, Jack D.....Kingman
Smith, Byron J.....Kingman
McCord, Carl B. (S).....Veedersburg
Person, Theodore C.....Veedersburg
Rusk, Hubert M.....Wallace
Nelson, Carl A.....West Lebanon
Crain, James W.....Williamsport

FULTON COUNTY

Herrick, Charles L.....Akron
Miller, Virgil C.....Akron
Dielman, Franklin C. (S).....Fulton
Kraning, Kenneth K.....Kewanna

Rochester

Herendeen, Elbie V.....120 W. Ninth St.
Richardson, Charles L.....121 W. Eighth St.
Richardson, Joseph D. .....121 W. Eighth St.
Rowe, Howard H.....705 Jefferson St.

Rusler, William J.....817 E. Ninth St.
Stinson, Dean K.....816 Main St.

Kelsey, Lawrence E.....102 W. Keim Dr., Phoenix, Ariz.

GIBSON COUNTY

Geick, Raymond G.....Fort Branch
Marchand, Edwin V.....Haubstadt
Petitjean, Harold G.....Haubstadt
Dye, William E.....Oakland City
Ropp, Eldon R.....Oakland City

Princeton

Carpentier, Harry F.....105 E. Broadway
Folck, John K.....115 N. Prince St.
Graves, Orville M.....116 S. Hart St.
McCarty, Virgil.....113 S. Main St.
McElroy, Robert S.....116 S. Main St.
Peck, James F.....218 Broadway
Strickland, Karl S. (S).....230 W. Broadway
Weitzel, Roland E.....114 S. Hart St.
Wells, William R.....109 E. State St.

Brazelton, O. T. (S)
5450 55th St., No. 14, San Diego 15, Calif.

GRANT COUNTY

Grant, M. Arthur.....Fairmount
Henley, Glenn (S).....Fairmount
Yale, Charles A.....Fairmount
Garrison, Leon J.....Gas City
Koontz, William A.....Gas City
Shoemaker, Richard L.....Gas City
Baskett, Russell J.....Jonesboro

Marion

Abell, Charles F.....500 Wabash Ave.
Alderfer, Henry H.....131 N. Washington St.
Ansbacher, Stefan (H).....Fox Station Rd. W.
Ayres, Wendell W.....500 Wabash Ave.
Bailey, Douglas A.....107 E. 31st St.
Bloom, Asa W.....724 W. Third St.
Boyer, Grace B.....605 Locust St.
Braunlin, Robert F...711 Marion Nat'l Bank Bldg.
Brown, Robert M.....520 Marion Nat'l Bank Bldg.
Comeau, William J.....Marion General Hosp.
Cunningham, Robert D.....500 Wabash Ave.
Daniels, George R. (S).....106 N. E Street
Davis, Joseph B.....131 N. Washington St.
Davis, Merrill S. (S).....131 N. Washington St.
Davis, Richard M.....131 N. Washington St.
Dunbar, Fred E.....Fisher Body Division General Motors Corp.
Fisher, Henry.....1502 S. Washington St.
Ganz, Max.....930 S. Adams
Goldsmith, David A.....Veterans Hospital
Hover, Galen M.....Veterans Hospital
Hummel, Russel M.....500 Wabash Ave.
Jarrett, John C.....131 N. Washington St.
Klein, Emanuel.....500 Wabash Ave.
Lahr, Richard E.....1121 W. Third St.
Langrall, Harrison M., Jr...131 N. Washington St.
Lavengood, Russell W.....225 Glass Block
Long, Max R.....803 S. Boots St.
Lonngren, Dudley H.....131 N. Washington St.
Love, V. Logan.....131 N. Washington St.
Marsh, Myrle F.....314 N. Western Ave.
Miller, H. Allison.....320 Glass Block
Pattison, John D.....131 N. Washington St.
Pearcy, Marcene.....500 Wabash Ave.
Powell, J. Paxton.....500 Wabash Ave.
Price, Ambrose M.....219 E. 30th St.
Reid, James D.....505 Buckingham Dr.
Renbarger, Lester L.....1531 W. Second
Rhamy, Arthur P.....500 Wabash Ave.
Rhamy, Donald E.....1632 Broadview Dr.
Rhorer, John G.....500 Wabash Ave.
Richardson, Joseph H.....131 N. Washington St.
Roll, William A.....131 N. Washington St.
Schroeder, Robert W.....317 N. Western Ave.
Simmons, Frederick H.....1009 N. Baldwin
Skomp, Claud E.....500 Wabash Ave.
Smith, Barton T.....131 N. Washington St.
Snowhite, Arthur B.....500 Wabash Ave.
Thompson, B. Jay.....Marion General Hosp.
Walton, R. Lee.....131 N. Washington St.
Warren, Carroll B.....511 Glass Block
Weinberg, Samuel.....104 W. Third St.
Wilson, Ned A.....317 N. Western Ave.
Wojcik, Ladislas D.....131 N. Washington St.
Woodbury, John W.....131 N. Washington St.
Young, Robert G.....2927 S. Washington St.

Beck, Thomas A.....Swayzee
Taylor, Everett C.....Upland
Donaldson, Miles W.....Van Buren
Rifner, Eugene S.....Van Buren
McIlwain, Eleanor E....Methodist Home, Warren
McIlwain, Robert E.....Methodist Home, Warren

GREENE COUNTY

Bloomfield

Graf, Jerome A.....6 E. Main St.
Mount, Mathias S.....55 N. Franklin St.
Turner, Harold B. (S).....126 E. Indiana Ave.
Turner, Jack J.....126 E. Indiana Ave.
Van Sandt, Frank A. (S).....110½ E. Main St.

Porter, Carl M.....Jasonville
Rotman, Harry G.....Jasonville
Rotman, Sam I.....Jasonville

Linton

Bailey, Edwin B.....129 E. Vincennes
Broshears, Kenneth P.....129 E. Vincennes
Raney, Ben B.....129 E. Vincennes
Tomak, Milton E.....289 N. Main St.
Woner, John W.....Linton

Hamilton, M. Luther (S).....Newberry
Moses, George E.....Worthington
Moses, Robert E.....Worthington

HAMILTON COUNTY

Karlick, Joseph R.....Arcadia
McDaniel, Franklin P. (S).....Atlanta
Donahue, Claude M.....Carmel
Thomas, W. Clayton.....Carmel
Havens, Oscar.....Cicero
Long, Malcolm D. ..10447 N. College, Indianapolis

Noblesville

Ambrose, Jesse C.....298 N. Ninth Street
Campbell, Sam W.....88 S. 19th St.
Carter, Eunice M.....1084 Clinton St.
Carter, Robert E., Jr.....1084 Clinton St.
Harris, Robert F.....120 N. 9th St.
Hash, John S.....139 S. 10th St.
Haywood, John G.....120 N. 11th St.
Hooke, Samuel W. (S).....P. O. Box 224
Lanning, R. Adrian.....10th and North Dr.
Lloyd, Joe R.....148 N. 9th St.
Shanks, Ray W.....104 S. 10th St.
Southard, Carl B.....55 S. 16th St.

Griffith, James W.....Sheridan
Manhart, Doyle B.....Sheridan
Newby, Eugene.....Sheridan
Reck, John L. (S).....Sheridan
Waitt, Paul M.....Sheridan
Connoy, Andrew F.....Westfield
Connoy, Leo F.....Westfield

HANCOCK COUNTY

Scott, Robert O.....Charlottesville
Garrison, James L. .....Cumberland
Navin, Hugh K. .....Fortville
Rhynearson, Hal R. .....Fortville

Greenfield

Beeson, Wilbur P.....114 N. State St.
Endicott, Wayne H.....10 W. Boyd
Farrell, John J., Jr.....1001 N. State St.
Gibbs, Charles M. (S).....203 E. North St.
Gill, Dee D.....1001 N. State St.
Henn, R. Anthony .....137 Michigan St.
Hunter, Donn R.....10 W. Boyd
Kinneman, Robert E.....114 N. State St.
Kirby, Ted C.....114 N. State St.
Smith, John H.....744 N. State St.
Vingis, Bronie A. .....746 N. State
Woods, James R., Jr .....11 N. State St.

Cagle, Bob R.....New Palestine
Pierson, Thomas A.....New Palestine
Freeborn, Warren S. Jr. .....Oaklandon
Miller, Joseph A. .....Oaklandon
Kuhn, Robert W.....Wilkinson

HARRISON-CRAWFORD COUNTIES

Corydon

Amy, William E. (S).....120 S. Capitol
Blessinger, Louis H.....101 W. Chestnut St.
Brockman, Wilfred J. .....439 E. Chestnut
Dillman, Carl E.....Beaver & Oak Sts.
Dukes, David J.....439 E. Chestnut St.
Jordan, Richard A.....Harrison Dr.
Martin, Samuel W.....R.R. 1

Baker, Guy D (S).....Crandall
Gobbel, Novy E. (S).....English
Seipel, Stanley .....Lanesville
Benz, Jesse C. (S).....Marengo
Lynch, Otis R.....Marengo
Mathys, Alfred ..234 E. Walnut St., Louisville, Ky.

HENDRICKS COUNTY

Brownsburg

Black, M. James .....702 E. Main St.
Foltz, Lloyd E. .....20 W. Main
Scudder, Arthur N. .....24 N. Grant St.
Walker, Thomas .....702 E. Main St.

Danville

Kirtley, Robert W.....138 W. Marion St.
Koch, Elmer L.....201 E. Columbia St.
Southard, James E.....985 W. Main St.
Terry, Lloyd.....138 W. Marion St.

Ellis, Lyman H.....Lizton
Gibbs, Joseph W. .....Home Lawn Sanitarium, Martinsville
Karpel, Bernard .....Mooresville
Wiseheart, Oscar H. (S).....North Salem
Scamahorn, Malcolm O.....Pittsboro
Scamahorn, Oscar T. (S).....Pittsboro

Plainfield

Aiken, Milo M.....140 N. Center St.
Cohen, Irving .....645 E. Main St.
Haggard, David B. .....P. O. Box 191
Stafford, William C.....107 W. Main St.
Warbinton, Fred P. .....P. O. Box 191

Frantz, Mount E.
3530th USAF Hosp., Bryan AFB, Texas

HENRY COUNTY

Clark, Marion E. .....Cambridge City
Donahue, Francis E. .....Dublin
Hollenberg, Alfred E.....25 W. N. Market, Hagerstown
Miller, William A. ..99 S. Washington, Hagerstown
Wiatt, Leonard H.....Knightstown
Scheetz, Marion R.....Lewisville
Stauffer, George E.....Mooreland
Marshall, Lloyd C. (S).....Mt. Summit

New Castle

Amos, Robert L.....1219½ Race St.
Bledsoe, James G.....319 S. 14th St.
Brock, Joseph T.....New Castle State Hosp.
Burnett, Arthur B.....106 N. Main St.
Cain, David R.....New Castle State Hosp.
Craig, Alexander F.....415 Raintree Dr.
Davies, Robert R. .....1319 Church St.
Easter, James N. .....1912 Bundy Ave.
Fisher, John E.....540 S. Main St.
Foster, Ray T.....420 N. Main St.
Grant, Phyllis A. .....1912 Bundy Ave.
Harrison, Benjamin L.....540 S. Main St.
Heilman, William C. (S).....1319 Church St.
Heilman, William C., Jr.....1319 Church St.
Hill, Kenneth G.....1319 Church St.
Iterman, George E. (S).....1319 Church St.
Kennedy, Walter U. (S).....208 Union Block
Life, Homer L.....1015 Broad St.
McDonald, Frank C.....527 S. Main St.
McElroy, James S.....1319 Church St.
McKee, Roy G.....319 S. 14th St.
Murray, William E.....New Castle State Hosp.
Saint, William K.....540 "B" South Main St.
Smith, Mark E.....1319 Church St.
Steussy, Calvin, N.....Henry Co. Hospital
Stout, Walter M. (S).....1319 Church St.
Stricker, Paul J.....319 S. 14th St.
Thorne, Charles E.....200 N. 12th St.
Tully, John A. (S).....502 S. Main St.
Vivian, Donald E.....Henry County Hospital
Wiggins, Dulania S. (S).....219 S. 12th St.

Robertson, William S.....Spiceland
Marsh, Chester A. (S)
906 Dexter St., Los Angeles 42, Calif.
McGee, Robert R. .1255 27th Ave., Columbus, Nebr.

HOWARD COUNTY

Denton, Larkin D.....Greentown
Shoup, Homer B. (S) .....Greentown

Kokomo

Alward, John H.....321 W. Walnut St.
Artis, Myrle E.....107½ S. Union St.
Ault, Carl H.....502 S. Berkley Rd.
Behn, Walter M., Jr.....700 E. Firmin
Belding, Ray T.....3130 S. La Fountain St.
Boughman, Joe D.....2008 W. Sycamore
Bowers, Copeland C.....210 W. Mulberry St.
Bowers, Garvey B.....210 W. Mulberry St.
Bowers, John A.....210 W. Mulberry St.
Bradley, Richard V. .....3130 S. La Fountain St.
Brown, Earl R., Jr.....1907 W. Sycamore St.
Bruegge, Theodore J.....2108 W. Sycamore
Cattell, Lee M.....214 E. Mulberry St.
Clarke, Elton R.....1039 S. Main St.
Conley, Thomas M.....500 Southway Blvd. East
Craig, Reuben A.....514 W. Superior St.
Craig, Reuben.....514 W. Superior St.
Crawford, Theodore R.....2114 W. Sycamore St.
Earl, Max M.....502 S. Berkley Rd.
Elleman, John H. .....414 W. Mulberry St.
Ericson, Homer S. .....124 Leafy Lane

Ferry, Paul W.....406 Union Bank Bldg.
Fields, Donald L.....500 Southway Blvd. East
Frazier, John L.....500 Southway Blvd. East
Fretz, Richard C.....215 W. Superior St.
Golper, Marvin N.....1907 W. Sycamore St.
Good, Richard P.....400 S. Berkley Rd.
Grothouse, Carl B.....402 S. Berkley Rd.
Halfast, Richard W.....402 S. Berkley Rd.
Hoyt, John M.....416 W. Sycamore St.
Hutto, William H.....215 W. Superior St.
Jewell, George M.....610 Armstrong-Landon Bldg.
Kremers, George A.....404 S. Berkley Rd.
Longshore, Robert E. .....1515 Haynes Ave.
McClure, Warren N.....407 W. Taylor St.
McIndoo, Ralph E. (S).....313 W. Taylor St.
Mendelson, Stanley M.....117 W. Markland
Michael, Robert L.....321 W. Walnut St.
Morrison, Wiliam R. (S).....504 Union Bank Bldg.
Murray, Ernest C.....408 W. Mulberry St.
Paris, Durward W...614 Armstrong-Landon Bldg.
Perkins, Powell L.....2112 W. Sycamore
Phares, Robert W.....905 W. Mulberry St.
Prather, Philip E.....909 S. Courtland
Ramey, John W. (S).....107½ S. Union St.
Rhorer, Herbert M. (S).....415½ W. Sycamore St.
Rudicel, Max.....1907 W. Sycamore St.
Schwartz, Frederick C.....2016 W. Sycamore
Shenk, Earl M. (S) .....208½ N. Main St.
Smith, Charles F. .....Howard Community Hosp.
Smith, Gloster J.....102½ S. Main St.
Sorenson, Raymond.....404 S. Berkley Rd.
Spangler, Jesse S.....215 E. Taylor St.
Trimble, John G.....116 S. Buckeye St.
Wachob, Tom W., Jr.
406 Armstrong-Landon Bldg.
Wible, James H.....2112 W. Sycamore St.

Miller, Arthur H. (S) .....Russiaville
Ware, John R. .....Russiaville

HUNTINGTON COUNTY

Huntington

Brubaker, Harold S.....42 W. Park Dr.
Casey, Stanley M.....408 E. Market St.
Clark, Joseph H. .....818 W. Park Dr.
Clunie, William A.....323 W. Park Dr.
Cope, Stanton E.....1022 N. Jefferson St.
Doermann, Paul E. .....340 E. Market St.
Erehart, Mark G. (S).....Maple Grove Rd., R. R. 8
Eviston, John B.....34 E. Washington St.
Gill, Donald R. .....1412 Oak St.
Grayston, Wallace S. (S).....303 E. Market St.
James, Thomas, Jr.....202 U. B. Publishing Bldg.
Johnston, Robert G. (S).....339 E. Market St.
Marks, Howard H.....248 W. Park Dr.
Meiser, Robert D.....612 N. Jefferson St.
Mitman, Floyd B.....210 W. Park Dr.
Omstead, Trevalyn W. .....229 Vine St.
Peare, Reeve B. .....1568 N. Jefferson St.
Van Campen, Warren M. .....354 E. Washington St.
Wagner, Richard.....1355 Guilford

Woods, Halden C.....Markle
Cooper, B. Trent.....Roanoke
Bennett, J. B.....Warren
Ray, Carl S.....Warren
Miller, Wayne S.
1926 Park Forest Dr., Flint, Mich.

JACKSON-JENNINGS COUNTY

Gillespie, Garland R.....Brownstown
Shields, Jack E.....Brownstown
Guthrie, William H.....Muscatatuck State School, Butlerville
Lowery, George E. .....Muscatatuck State School, Butlerville
Knotts, Slater .....R. R. 3, Columbus
Adair, William K. (S).....Crothersville
Bard, Frank B.....Crothersville
Butler, Joe B.....Crothersville
Scharbrough, William D. .....Ewing

North Vernon

Calli, Louis.....408 S. State St.
Ellis, Forrest D. .....241 Norris Ave.
Johnson, William A.....245 Norris Ave.
Thayer, Benet W.....20 S. Jackson St.

Seymour

Baxter, Harry R.....326 N. Walnut St.
Black, Joe M.....502 W. Second St.
Bobb, Kenneth E.....406 S. Chestnut St.
Bosch, Ralph .....635 W. Second St.
Day, William D. C. .....410 S. Chestnut St.
Graessle, Harold P.....304 W. Second St.
Martin, Guy.....105 N. Walnut St.
Miller, Harold E.....Vehslage Bldg.
Osterman, Louis H.....315 W. Second St.
Ripley, John W.....321 Bruce St.
Templeton, Ian S.....207 N. Pine St.
Wiethoff, Clifford A.....214 N. Walnut St.

JASPER-NEWTON COUNTIES

Schoonveld, Arthur .....Brook
Parker, John C.....Goodland
Yegerlehner, Roscoe S.....Kentland
Brady, Kingdon.....Morocco
Schantz, Richard.....Remington

Rensselaer

Beaver, Ernest R.....111 Thompson St.
Greene, Robert W.....212 S. Van Rensselaer St.
Jones, Edwin F.....Jasper County Hosp.
O'Brien, Francis E..McKinley and Washington Sts.
Ockerman, Kenneth R.....119 W. Harrison St.
Williams, Paul A.....119 W. Harrison St.

Gwin, Merle D. (S)
2111 Regatta Ave., Miami Beach, Fla.

JAY COUNTY

Dunkirk

Entner, Charles L.....125 E. Commerce
Heller, Nelson L. R. (S).....354 E. Washington St.
Shroyer, Herbert.....244½ S. Main St.
Tate, Elizabeth.....317 S. Main St.

Andrews, C. Franklin .....R. R. 1, Geneva
Donnally, George A. .....R. R. 1, Geneva

Portland

Badders, Ara C. (S).....226 W. Main St.
Cripe, William H. .....302 N. Meridian St.
Fitzpatrick, James S.....603 W. Arch St.
Gillum, Eugene M.....522 W. Arch St.
Keeling, Forrest E.....504 W. Arch St.
Lyon, Florence M.....127 E. North St.
Moran, Mark M. (S).....105 S. Commerce
Morrison, George C. .....116 W. Walnut St.
Schenck, Ralph E.....603 W. Arch St.
Spahr, Donald E.....615 W. Race St.
Steffy, Ralph M.....504 W. Arch St.
Vormohr, Joseph F. .....Portland

JEFFERSON-SWITZERLAND COUNTIES

Madison

Alcorn, Merritt O.....R. R. 2
Childs, Wallace E.....412 E. Main St.
Davis, Lloyd H. (S).....Madison State Hospital
Fong, Theodore C. C.....Madison State Hospital
Gambill, J. Randolph .....Madison State Hospital
Haney, William K. .....445 Clifty Dr.
Hare, Francis W., Jr.....722 W. Main St.
Harris, George F.....445 Clifty Dr.
Jolly, Lewis E.....722 W. Main St.
Karnafel, Eugene T. .....2300 Ross St.
May, George A.....426 E. Main St.
McAtee, Ott B. .....Madison State Hospital
Modisett, Jackson W.....722 W. Main St.
Modisett, Marcella S.....722 W. Main St.
Moore, Martha.....Madison State Hospital
Pratt, Ralph M., Jr.....323 Poplar St.
Prenatt, Francis.....Madison State Hospital
Riley, H. S. .....Madison Clinic
Rucker, Warren R.....426 E. Main St.
Shuck, William A.....Odd Fellows Bldg.
Sloan, W. Keith.....426 E. Main St.
Turner, Anna Goss .....602 E. Second St.
Turner, Oscar A. (S).....602 E. Second St.
Zink, Robert O.....722 W. Main St.

Graves, Noel S.....Vevay
Hamilton, Antha A.....Vevay

JOHNSON COUNTY

Lutes, David L. (S).....305 S. Kyle St., Edinburg

Franklin

Andrews, Hugh K.....176 E. Jefferson St.
Bullers, Robert C.....395 S. Home Ave.
Bullington, George E.....251 E. Jefferson St.
Chappel, Alfred T.....100 N. Main St.
Deppe, Charles F.....301 E. Jefferson St.
Ferrara, Joseph F. .....1107 N. Main St.
Foster, Robert H. K. .....301 E. Jefferson St.
Hibbs, William G. .....Masonic Hospital
Jones, Charles A.....251 E. Jefferson St.
Mock, Harry E., Jr.....901 N. Main St.
Portteus, Walter L.....1551 N. Main St.
Province, Oran A.....100 N. Main St.
Province, William D.....100 N. Main St.
Records, Arthur W.....198 E. Jefferson St.
Ritteman, George W...Johnson Co. Memorial Hosp.
Stogsdill, Willis W.....176 E. Jefferson St.
Walters, Jack L. .....1551 N. Main St.
Waymire, William M. .....1551 N. Main St.

Greenwood

Barnes, Helen Beall.....360 S. Madison Ave.
Brown, George E.....374 S. Madison Ave.
Chambers, Pauline D.....360 S. Madison Ave.
Kunz, Albert L. .....R. R. 4, Box 241 B
Link, Charles W. Jr. .....360 S. Madison Ave.
Onyett, Harold R. .....R. R. 4, Box 32
Sheek, Kenneth I.....188 Madison Ave.
Snodgrass, Robert E.....360 S. Madison Ave.
Tiley, George A.....41 N. Madison Ave.
Young, Joseph .....360 Madison Ave.

Machledt, John H.....Whiteland

KNOX COUNTY

Bicknell

Byrne, Robert J. .....207 N. Main St.
Shanklin, Jack L.....417 N. Main St.
Wilson, Guy H.....120 W. Third St.

Springstun, George H.....Oaktown

Vincennes

Anderson, John B.....301 LaPlante Bldg.
Anderson, Richard M.....301 LaPlante Bldg.
Arbogast, Paul B.....915 Main St.
Barrett, Thomas L.....1019 Dubois St.
Bartlett, Donald T.....1045 Washington Ave.
Beckes, Ellsworth W.....220 N. Fifth St.
Black, Boyd K.....Good Samaritan Hospital
Chattin, Herbert O.....729 Main St.
Coffel, Melvin H.....424 LaPlante Bldg.
Corsentino, Bart E.....Good Samaritan Hospital
Curtner, Myron L. (S).....222 N. Sixth St.
Edwards, Edward T., Jr.....34 S. Seventh St.
Ewing, Nathaniel D. .....P. O. Box 494
Hendrix, Charles E.....603 Busseron
Hoffman, Doris.....720 Perry St.
Humphreys, Joe E.....1516 N. Second St.
Jones, John G. (S).....210 N. Third St.
Kline, Charles D.....301 American Bank Bldg.
McCormick, Hubert D. (S)....325 LaPlante Bldg.
McDowell, Mordecai M.....611 Dubois St.
McMahan, Virgil C.....609 Dubois St.
Moore, Robert G.....21 N. Third St.
Nichols, Robert J.....605 Busseron St.
Parmenter, Harry B. ....301 American Bank Bldg.
Reilly, James F.....401 Buntin St.
Schulze, William.....810 Buntin St.
Shaffer, Kenneth L.....404 LaPlante Bldg.
Smith, Ralph O.....603 Busseron
Smith, S. Joseph .....301 LaPlante Bldg.
Spencer, Frederic.....429 S. Sixth St.
Stein, Richard H.....301 American Bank Bldg.
Stewart, J. Frank W.....Hillcrest Hospital
Sullenger, Adron A.....605 Busseron
Tolbert, Robert D. .....607 Dubois St.
Vaughn, Walter R.....615 Dubois St.
von der Lieth, William C. .....P. O. Box 494
Welch, Norbert M.....615 Dubois St.

KOSCIUSKO COUNTY

Olivo, Marciano T. .....Methodist Hosp., Gary
Urschel, Dan L. .....Mentone
Wilson, Wymond B.....Mentone
Pierson, Pearl H.....Silver Lake

Warsaw

Arford, John E.....102 E. Fort Wayne
Baum, John R.....212 S. Indiana
Cron, William J.....215 S. High St.
Dormire, Robert D.....600 E. Winona Ave.
DuBois, Charles C. (S).....800 E. Center St.
Hashemi, Hossein.....215 S. High St.
Haymond, George.....Ted Williams Dr., R. R. 2
Hillery, John.....208 E. Center St.
Reed, Edgar A. .....422 S. Buffalo St.
Schlemmer, George H.....Murphy Medical Center
Shrader, Carl E.....600 E. Winona Ave.
Swihart, John J. .....Murphy Medical Center
Thomas, Everett W.....212 S. Indiana

LAGRANGE COUNTY

Taylor, M. Reed .....Howe
Wade, Alfred A. (S).....Howe
Yunker, Philip E.....Howe

LaGrange

Benedict, Charles D.....203 W. Wayne St.
Flannigan, Harley F.....213 W. Lafayette
Miller, Jerry A.....Medical Bldg.
Studebaker, Lloyd R.....Medical Bldg.

Williams, John H.....Shipshewana
Lehman, Kenneth M.....Topeka
Weir, Dale..3030 Beals Branch Rd., Louisville, Ky.

LAKE COUNTY

Cedar Lake

Heckaman, Edward L. .....R. R. 1, Box 4
King, Robert W. .....R. R. 1, Box 4
Miller, Donald C. .....R. R. 2, Box 337
Misch, William .....R. R. 2, Box 337

Crown Point

Becker, Philip H....Lake County Tuberculosis San.
Bernoske, Daniel G.....Court House
Birdzell, John P.....124 N. Main St.
Carroll, Mary D. .....124 N. Main St.
Dhein, Donald T.....47 W. 68th Place
Doherty, Raymond J.....47 W. 68th Place
DuSold, Donald D.....306 E. Joliet
Gray, Daniel E.....182 W. North St.
Gutierrez, Peter E.....123 N. Court St.
Horst, William N.....123 N. Court St.
Monroe, F. Bruce.....40 West 73rd St.
Russo, Andrew E.....224 S. Court St.
Steele, Everett B.....109 E. North St.
Troutwine, William R.....224 S. Court

Theobald, Sterling.....212 Joliet St., Dyer

East Chicago

Bacevich, Andrew J.....3406 Guthrie St.
Barron, Elmer A.....3406 Guthrie St.
Benchik, Frank A.....4712 Magoun Ave.
Bonaventura, Angelo P.....3701 Main St.
Boyd, Charles S.....4739 Melville Ave.
Boys, Fay F.....4712 Magoun Ave.
Brauer, Abraham A.....3528 Main St.
Braun, Benjamin D.....St. Catherine's Hospital
Broomes, Edward L. C.....2402 Broadway
Bryant, Edward G.....2220 Broadway
Campagna, Ettro A.....3406 Guthrie St.
Claybourn, Norman L.....3210 Watling St.
Dainko, Alfred J.....823 W. Chicago Ave.
Fedor, Thomas .....3406 Guthrie St.
Fleischer, Jacob C.....4035 Elm St.
Frahm, Charles .....4321 Fir
Gardiner, H. Glenn.....3210 Watling
Geronimo, Manuel M. .....3528 Main St.
Geronimo, Rita R. V. .....3528 Main St.
Govorchin, Alexander.....724 W. Chicago Ave.
Grosso, William G.....1919 E. Columbus Dr.
Harper, James W.....3912 Euclid
Hayes, Jesse D.....4804 Alexander
Hernandez, I. C. .....1802 Columbus Dr.
Irish, Wilbur J. .....806 W. Chicago Ave.
Johns, David R. (S).....1211 Beacon St.
Komoroske, John E.....4710 Indianapolis Blvd.
Kopanko, Bernard F.....823 W. Chicago Ave.
Levin, Eli L.....4105 Grand Blvd.
McGuire, Desmond F. (S)....3429 Michigan Ave.
Marks, Ora L.....815 W. Chicago Ave.
Marquinez, Adoracin A.....4124 Elm
Milan, Shisachki D.....622 W. Chicago Ave.
Nisocia, John B. .....1802 E. Columbus Dr.
Payne, Arthur C.....2020 Broadway
Perdomo, Octavio J. .....3406 Guthrie St.
Ramos, John.....3807 Main St.
Reitman, Paul H. .....4321 Fir St.
Romero, Plinio .....3525 Main St.
Serna, Carlos A.....4035 Elm St.
Serna, Jesus A.....3619 Main St.
Shapiro, Joseph.....3738 Main St.
Shapiro, Seymour W.....3738 Main St.
Shulruff, Harry I.....3701 Main St.
Teegarden, Joseph A., Jr....1919 E. Columbus Dr.
Teegarden, Joseph A. (S)....1919 E. Columbus Dr.
Teplinsky, Louis L.....1802 E. Columbus Dr.
Trepagnier, Francis B.....3628 Main St.
Walker, Adolph P.....1820 E. Columbus Dr.
Zallen, Stanley G.....720 W. Chicago Ave.

Gary

Abramson, Allan L.....3290 Grant St.
Agana, Adriano A.....630 Allen
Alfano, Paul A.....2717 Wabash
Almquist, Carl O.....504 Broadway
Alvarez, Paul.....2717 Wabash Ave.
Ambrozaitis, Kazys.....1600 W. Sixth Ave.
Amico, Pasquale J.....3807 Washington
Armalavage, Leon J.....2620 W. Fifth Ave.
Barton, Reginald R.....427 S. Lake
Behn, Walter M.....504 Broadway
Bendler, Carl H.....3290 Grant St.
Bergal, Milton B.....738 Broadway
Bernard, Marvin R.....3807 Washington St.
Bills, R. James.....504 Broadway
Bills, Robert N.....504 Broadway
Bisgyer, Jay L. .....4801 W. Fifth Ave.
Boardman, Carl (S).....630 Buchanan St.
Borak, Walter J.....5000 Ridge Road
Bornstein, Herschel .....3290 Grant
Brady, Samuel G.....757 Broadway
Brandman, Harry .....504 Broadway
Brincko, John .....504 Broadway
Bringas, Irineo B.....858 Broadway
Brink, Calvin C. (S).....504 Broadway
Brown, David B.....504 Broadway
Brown, Leo R.....4645 Broadway
Bullard, Mattie J.....620 E. Tenth Place
Burcham, James B.....738 Broadway
Cahué, Antonio R.....504 Broadway
Carberry, George A.....3656 Grant St.
Carbone, Joseph A.....504 Broadway
Carey, J. Albert.....1903 Broadway
Carmody, Raymond F.....504 Broadway
Chube, David D.....1606 Broadway
Cohen, Hyman .....3290 Grant St.
Cooper, Leo K.....504 Broadway
Corrao, Gaetano.....2471 Colfax
Daniel, Robert A.....738 Broadway
Danieleski, Ladislaus J.....738 Broadway
Darling, Dorothy R. .....1600 W. Sixth Ave.
Davis, Neal .....1600 W. Sixth Ave.
De Bois, Elon.....1080 Roosevelt
Dian, August J.....504 Broadway
Dierolf, Edward J.....504 Broadway
Donchess, Joseph C.....215 Broadway
Dosado, Elpidio B. .....625 Washington
Duncan, John S. .....2165 W. 11th Ave.
English, Hubert M.....673 Broadway
Espy, Theodore R.....1901 Broadway
Fadell, Matthew J.....4655 Broadway
Fadul, Armand.....5317 W. Fifth Ave.
Galante, Vincent J.....St. Mary Mercy Hospital
Gallinatti, John J. .....554 S. Lake
Gilles, Pierre .....1649 Broadway
Glover, William J.....504 Broadway
Goldberg, Harold B.....3656 Grant
Golding, Robert F.....P. O. Box 727
Goldstone, Adolph.....3229 Broadway
Goldstone, Arthur .....3233 Broadway
Goldstone, Joseph .....3229 Broadway
Goldstone, Robert J. .....3229 Broadway
Goldstone, Sidney R.....3233 Broadway
Grant, Benjamin F.....1706 Broadway
Gregoline, Amadeo F.....729 Broadway
Gregoline, Eugene .....729 Broadway
Hadey, James H.....2620 W. Fifth Ave.
Hedrick, James T.....1649 Washington St.
Hodurski, Zigfield.....4319 Broadway
Hoit, Leonard.....504 Broadway
Jahns, Albin A.....2318 W. Fifth St.
Johnson, Arnold L.....1903 Broadway
Johnson, Lonnie B.....123 W. 21st St.
Kaltenthaler, Albert .....1600 W. Sixth Ave.
Kendrick, Frank J.....504 Broadway
Khaton, Odessa M.....1649 Broadway
Klaus, Julius M.....5265 Cleveland

Kobrin, Meyer W.....3229 Broadway
Kolettis, John G.....504 Broadway
Kopcha, Joseph E.....504 Broadway
Korn, Jerome M.....3290 Grant St.
Lazo, Vicente R.....765 Broadway
Lebioda, Henry S.....4655 Broadway
Lewis, George N.....504 Broadway
Lewis, Lucien A.....1649 Broadway
Lipschutz, Harold.....504 Broadway
Lipsey, Alfred J.....504 Broadway
Loh, Hwei Ya (Chang).....212 Cleveland St.
Loh, Wei-Ping.....212 Cleveland St.
Lorenty, Thaddeus B.....504 Broadway
Lovell, Martin H.....124 W. 25th St.
Lutz, Georgianna.....504 Broadway
Lytwakiwsky, Anatol.....552 S. Lake
McMath, Samuel B.....1649 Broadway
Majsterek, Stanley L.....1034 Aetna St.
Manalo, Francisco S.....538 Lincoln
Mangan, Frank P.....3807 Washington
Marcus, Morris C.....3229 Broadway
Marshall, Millard R.....504 Broadway
Mather, J. Winford....2250 Ripley St., East Gary
May, Richard M.....583 Broadway
Milos, Robert J.....504 Broadway
Minczewski, Richard C.....5490 Broadway Plaza
Mitchell, Georgia B.....1706 Broadway
Molengraft, Cornelius J.....504 Broadway
Moore, Edwin G.....1606 Broadway
Morris, Hyman R.....3229 S. Broadway
Moswin, Jack A.....504 Broadway
Mott, William H.....2009 Broadway
Nelson, Walfred A.....559 S. Lake St.
Oberlander, Seymour.....3290 Grant St.
Olson, Leslie D.....2318 W. Fifth Ave.
Ornelas, Joseph P.....3656 Grant St.
Pappas, Eddie T.....2717 Wabash Ave.
Parratt, Louis W.....708 Broadway
Penn, Robert A.....3792 Central Ave., East Gary
Poracky, Bernard F.....504 Broadway
Pruitt, J. Edward.....4655 Broadway
Radigan, Leo R.....504 Broadway
Ramos, Alfonso.....5490 Broadway
Reynolds, James S.....504 Broadway
Richter, Samuel.....504 Broadway
Riordan, John F.....Methodist Hospital
Robinson, Walter K.....504 Broadway
Rosenbloom, Philip J.....571 Lincoln St.
Ross, David E., Jr.....633 E. 21st St.
Roth, Leo.....3229 Broadway
Roth, Melvin I.....3229 Broadway
Rubin, Simon S.....504 Broadway
Ryan, Hubert J.....5490 Broadway Plaza
Sala, Joseph J.....2705 Wabash
Sala, Walter R.....2705 Wabash
Schulz, Kurt J.....4655 Broadway
Scully, John T.....2318 W. Fifth Ave.
Senese, Thomas J.....504 Broadway
Shellhouse, Michael.....3811 Washington St.
Shevick, Alexander.....2620 W. Fifth Ave.
Slama, George F.....4431 Broadway
Slama, John T.....4481 Broadway
Spellman, Frank W.....401 S. Lake
Spivack, Mary.....504 Broadway
Sponder, Joseph (S).....1512 Broadway
Stern, Mona K.....7535 E. Harold
Stimson, Harry R.....504 Broadway
Stookey, Richard D.....4655 Broadway
Stoycoff, Christ M. (S).....860 Broadway
Thomas, Daniel D.....3290 Grant St.
Thomas, Gerald J.....3920 Grant St.
Tsatsos, George C.....3820 Central, East Gary
Turgi, Robert W.....504 Broadway
Valencia, M. Monica..2620 Central Ave., East Gary
Verplank, Grover L. (S).....2701 W. 57th Ave.
Voorhies, McKinley.....1606 Broadway
Walters, Eleanor.....602 Broadway
Washington, G. Kenneth.....1645 Broadway
Weiskopf, Henry S.....504 Broadway
Wharton, Russell O. (S).....6559 Ash Place
Whitaker, Jack.....540 Tyler
Williams, Alexander S.....436 W. 25th St.
Williams, Edwin D.....436 W. 25th St.
Williams, Fred R.....2501 Polk St.
Wimmer, Robert N. (S).....9 W. Sixth St.
Yast, Charles J.....504 Broadway
Yocum, Paul S. Sr.....757 Broadway
Yocum, Paul S. Jr.....504 Broadway
Yocum, William S.....790 Broadway
Young, George M.....3656 Grant St.
Young, Robert L.....504 Broadway
Zucker, Edward.....504 Broadway

Griffith

Carpenter, Bennie F.....1212 N. Broad
Lundeberg, Ralph A.....1212 N. Broad St.
Purcell, Richard J.....433 N. Glenwood
Siekierski, Joseph M.....145 N. Griffith

Hammond

Alfano, Joseph E.....5252 Hohman Ave.
Allegretti, Michael L.....6850 Hohman Ave.
Balaguer, Carmen V.....20 Kenwood
Beconovich, Robert.....6850 Hohman Ave.
Bethea, Dennis A. (S).....1021 Fields St.
Bombar, Leslie E.....6850 Hohman Ave.
Chidlaw, Benjamin W. (S).....29 Wildwood Rd.
Costello, Albert J.....30 Douglas St.
Cotter, Edward R.....2415 169th St.
Davis, Thomas N. III.....5246 Hohman Ave.
Eggers, Ernest L. (S).....635 165th St.
Eggers, Henry W.....30 Douglas St.
Egnatz, Nicholas.....820 Highland
Elledge, Ray.....6415 Forest Ave.
Eugenides, Tatiana.....6223 Hohman Ave.
Fischer, Burnell.....St. Margaret's Hosp.
Fitzpatrick, William J.....30 Douglas St.
Friedman, Isadore E.....7217 Indianapolis Blvd.
Gevirtz, Milton B.....6850 Hohman Ave.
Hickman, A. Lee.....30 Douglas St.
Howard, William Harry.....5231 Hohman Ave.
Husted, Robert G.....6850 Hohman Ave.
Hyndman, Lloyd G.....1566 178th Place
Jones, Eli S.....30 Douglas St.
Kenney, Francis D.....30 Douglas St.
Kolanko, Leon A.....30 Douglas St.
Koransky, David S.....7217 Indianapolis Blvd.
Kuhn, Arthur J.....112 Rimbach St.
Kuhn, Hedwig S.....112 Rimbach St.
LaFollette, Forrest R.....7016 Indianapolis Blvd.
Lautz, Herbert A.....112 Rimbach St.
Long, Keith J.....30 Douglas St.
McVey, Clarence A.....5231 Hohman Ave.
Manley, Floyd.....6010 Columbia
Mansueto, Mario D.....5231 Hohman Ave.
Marcus, Emanuel.....7127 Indianapolis Blvd.
Marks, Salvo P.....30 Douglas St.
Mason, Richard L.....132 Rimbach St.
Mintz, Alfred M.....7550 Hohman Ave.
Modjeski, Joseph R.....5451½ Hohman Ave.
Montes, Herminio Y.....5217 Hohman Ave.
Neal, Leonard W.....6850 Hohman Ave.
Nodinger, Louis.....540 165th St.
Palmer, Barron M. F.....6134 Columbia
Panares, Solomon V.....5434 Hohman Ave.
Peck, Edward A.....430 Conkey St.
Peiffer, Geraldine M.....5217 Hohman Ave.
Pilot, Jean.....5231 Hohman Ave.
Premuda, Franklin F.....6727 Kennedy Ave.
Ramker, Daniel T.....7040 Kennedy Ave.
Rasch, George C., Jr.....8148 Calumet
Rawlins, Carolyn M.....6223 Hohman Ave.
Remich, Antone C.....30 Douglas St.
Rendel, Donald T.....5231 Hohman Ave.
Repay, Walter A.....25 Douglas St.
Rhind, Alexander W.....422 Conkey St.

Rosenthal, Carl.....St. Margaret's Hospital
Rosevear, Henry J.....30 Douglas St.
Row, Perrie Q.....7330 Indianapolis Blvd.
Rubright, Robert L.....7258 Forest Ave.
Sargent, Wallace B.....112 Rimbach
Schlesinger, Daniel J.....6850 Hohman Ave.
Schulfer, Richard J.....7134 Calumet Ave.
Schwartz, Mary M.....7550 Hohman Ave.
Smith, Jerald E.....6850 Hohman Ave.
Smitley, Roger P.....30 Douglas St.
Solis, Roger V.....422 Conkey St.
Sroka, Alexander G.....5305 Hohman Ave.
Stasick, Murray.....837 169th St.
Stern, Samuel L.....5231 Hohman Ave.
Tilka, Edward C.....7134 Calumet
Trachtenberg, Lee.....112 Rimbach
Weissman, Charles G.....5246 Hohman Ave.
White, Gilbert H. Jr.....6429 Kennedy Ave.
Wong, Samuel N.....7127 Indianapolis Blvd.

Highland

Bakos, Edward R.....8125 Kennedy
Santiago, Iluminada.....8127 Kennedy
Sroka, Stanley J.....2942 Highway Ave.
Vore, Hugh A.....8680 Prairie Ave.

Hobart

Bjorklund, C. Ray.....295 S. Wisconsin St.
Carter, John O.....295 S. Wisconsin St.
Faulkner, Donald J.....295 S. Wisconsin St.
Kellar, Philip E.....701 N. Ridge
Krsek, Archie J.....10 N. Michigan Ave.
Markle, Joseph G.....201 Main St.
Parker, Harry C. (S).....831 Garfield St.
Pike, Warren H.....108 E. Third St.
Reed, John.....10 N. Michigan Ave.
Thomas, Andrew C.....295 S. Wisconsin St.
Weiss, John T.....295 S. Wisconsin St.

Albrecht, Williard H.....R. R. 17, Box 336B, Indianapolis
Doneff, Ronald H.....Marion Co. General Hosp., Indianapolis (7)
Gill, John R..4638 Graceland Ave., Indianapolis (8)
Kyle, Michael A.....I. U. Medical Center, Indianapolis (7)

Lowell

Mirro, John A.....317 E. Commercial Ave.
Smith, Robert D.....308 E. Commercial
Templin, David B.....308 E. Commercial

Munster

Alt, Edward M. Jr.....7550 Hohman Ave.
Arbeiter, Herbert L.....7550 Hohman Ave.
Arrowsmith, James L.....7550 Hohman Ave.
Brenner, Howard B.....7905 Calumet Ave.
Chael, Thomas C.....7905 Calumet Ave.
Egnatz, Charles D.....223 Terrace Dr.
Espino, Jose C.....8144 Calumet Ave.
Fox, Jack M.....7550 Hohman Ave.
Keplinger, James E.....7550 Hohman Ave.
Kott, Alexander.....7550 Hohman Ave.
Lanman, John U.....8146 Calumet Ave.
Larrabee, James F.....130 Ridge Road
Madlang, Rodolfo M.....7550 Hohman Ave.
Mason, John C.....7905 Calumet Ave.
McLean, James S.....1836 Ridge Road
Navarre, Vincent J.....7628 Manor Ave.
Paul, Eudell G.....7550 Hohman Ave.
Portney, Fred R.....7905 Calumet Ave.
Rudolph, Franklin G.....7550 Hohman Ave.
Santare, Vincent J.....7550 Hohman Ave.
Schwartz, Jack.....7550 Hohman Ave.
Snyder, Jerome A.....7905 Calumet Ave.
Stevens, Edwin W.....7905 Calumet Ave.
Sweany, Stanford K.....7550 Hohman Ave.
Thomas, Thomas R.....7550 Hohman Ave.
Westhaysen, Peter V.....7550 Hohman Ave.
Wooden, Thomas F.....8351 Crestwood Ave.

Portage

Carlson, Milton R.....14000 Central
Crise, John R.....14000 Central
Hoham, Fred D.....12054 Central
Kilmer, Warren L.....14000 Central
Lands, Robert M.....14000 Central
Noonan, Leo C.....2368 Vivian Court

Wunsch, Charles M.....60 Jefferson, Valparaiso
Skeen, Earl D. (S)..R. R. 3, Box 322B, Walkerton

Whiting

Angel, Virgil E.....2125 Indianapolis Blvd.
Becker, Samuel W.....2075 Indianapolis Blvd.
Best, Robert C.....2075 Indianapolis Blvd.
Brennan, William C.....2075 Indianapolis Blvd.
Davis, Perk L.....2075 Indianapolis Blvd.
Feinberg, Irwin I.....2075 Indianapolis Blvd.
Ferry, John L.....1902 Indianapolis Blvd.
Frankowski, Clementine E.....1907 New York Ave.
Greisen, Jack G.....2075 Indianapolis Blvd.
Gustaitis, John W.....1900 Indianapolis Blvd.
Kudele, Louis T.....1321 119th St.
McCarthy, Jeremiah A.....1341 119th St.
Polite, Nicholas L.....2075 Indianapolis Blvd.
Rudser, Donald H.....2075 Indianapolis Blvd.
Silvian, Harry A.....1010 119th St.
Smith, Theodore J.....1902 Indianapolis Blvd.
Sokol, Allen B.....2075 Indianapolis Blvd.
Stecy, Peter.....1902 Indianapolis Blvd.
Steen, Lowell H.....2075 Indianapolis Blvd.
Troy, Jack M.....2075 Indianapolis Blvd.
Weinberg, Benjamin A.....1346 119th St.

Angeles, Uldarico A.....451 Clarkson Ave., Brooklyn, N. Y.
Bolin, John T. (S).....Mountain Home, Ark.
Bradley, Charles F.....406 Lincoln Ave., Smyrna Beach, Fla.
Detrick, Herbert W. (S)
46 Walnut St., Haddonfield, N. J.
Elliott, Ralph A.....395th Evac. Hospital
Wm. Beaumont Gen. Hosp., El Paso, Texas
Feldner, Ronald P.
704 Wentworth, Calumet City, Ill.
Hayes, Jesse D., Jr.
4143 A San Francisco, St. Louis, Mo.
Jannasch, Maurice C.
3022 Landria Dr., Richmond 25, Va.
Kamen, Jack M.
1025 Chesterton, Redwood City, Calif.
Kmak, Chester J.....19447 Orleans, Detroit, Mich.
McMichael, Frank J. (S)..Box 277, Hernando, Fla.
Mason, Earl J. 2851 S. Parkway #1906, Chicago, Ill.
Murphy, Joseph F.....3508 Ridge Rd., Lansing, Ill.
Rodriquez, Cecilio
Bronx V. A. Hospital, New York, N. Y.
Schmitt, Robert J.
10400 S. Western Ave., Chicago, Ill.
Seyler, Anna G.
2780 Hillcrest Dr., La Verne, Calif.
Tyrrell, Joseph J.
800 State Line, Calumet City, Ill.
Tyrrell, Thomas C.
800 State Line, Calumet City, Ill.
Yanson, Mannfredo R. S.
2012 Mountain Ave., C, Duarte, Calif.

LA PORTE COUNTY

Oak, David, Jr.....Hanna
Oak, David D. (S).....LaCrosse

La Porte

Backer, George P.....806 Maple Ave.
Backer, Mary B.....903 Indiana Ave.
Carpentier, James R.....903 Indiana Ave.
Carter, Fred S.....1200 Michigan Ave.
Cartwright, Jack D.....1003 Indiana Ave.

Datzman, Basil J.....216 E Street
Durham, Lowell J.....316 Pine Lake Ave.
Elshout, Clem H.....1004 Indiana Ave.
Erwin, W. Robert.....216 E St.
Fargher, Robert A.....811 Jefferson Ave.
Farnsworth, Samuel A.....1012 Michigan Ave.
Feinn, Harry S.....1013 Indiana Ave.
Fischer, Carlton N.....1001 Maple Ave.
Kelsey, Robert M., Jr.....702 Maple Ave.
Kelsey, Robert M., Sr.....702 Maple Ave.
Kepler, Robert W.....708 Harrison St.
Kistler, James J.....911 Maple Ave.
Larson, Goyt O.....1110 Indiana Ave.
Mead, Frank E.....801 Madison St.
Mueller, Edwin C.....905 Indiana Ave.
Muhleman, Charles E. .....1200 Michigan Ave.
Philbrook, Seth S.....705 Harrison St.
Predd, Adolph C.....909 Madison St.
Richter, John C.....1110 Indiana Ave.
Scott, John S.....806 Maple Ave.
Sirugo, Aldo C. .....806 Madison St.
Tabaka, Francis B.....1201 Michigan Ave.
Von Asch, George.....912 Monroe St.
Wolf, William E.....102 Lincoln Way

Michigan City

Armstrong, Thomas D.....120 W. Ninth St.
Arney, Amos.....125 E. Fifth St.
Baker, Warren.....427 Warren Bldg.
Balingit, Benjamin L. .....P. O. Box 41
Bankoff, Milton L.....125 E. Fifth St.
Bergan, Joseph A. .....217 W. Homer St.
Berkson, Myron E.....801 Washington St.
Burris, Floyd L.....731 Spring St.
Carlson, Norman R.....913 Wabash St.
Cleveland, John B.....2222 E. Michigan St.
Fargher, Francis M.....907 Washington St.
Frost, Robert J.....817 Pine St.
Gardner, Melvin D.....801 Washington St.
Gardner, Russell A.....801 Washington St.
Gilmore, Russell A. (S).....304 Warren Bldg.
Given, Everett H. .....907 Washington St.
Hay, Gene R.....106 Belmont Court
Henderson, Norman C.....131 E. Eighth St.
Hillenbrand, Charles.....128 W. 10th St.
Jones, King S.....328½ Franklin St.
Kemp, John T.....122 E. Seventh St.
Kerr, Charlotte H.....723 Franklin St.
Kerr, John E. .....723 Franklin St.
Kerrigan, John F.....916 Washington St.
Kerrigan, Robert L. (S).....916 Washington St.
Kubik, Francis J.....902 Pine St.
Liddell, Charles K. .....508 Pine St.
Mannion, Rodney A. .....723 Franklin St.
Marske, Robert L.....311-13 Warren Bldg.
McGue, Frank J.....P. O. Box 41
Miller, Maurice.....125 E. Fifth St.
Milne, Walter S.....916 Washington St.
O'Brien, Raymond J.....1412 Franklin St.
Paul, Leonard G.....515 Pine St.
Phillips, Johns H. .....801 E. 11th St.
Pilecki, Peter J.....125 E. Fifth St.
Plank, C. Robert.....732 E. Pine St.
Reed, Nelle C. (S).....3210 Tilden Ave.
Sciarrone, Francesco .....817 Pine St.
Taub, Robert G.....125 E. Fifth St.
Tunnell, Harry D.....107 W. Fourth St.
Walters, William H.....Warren Bldg.
Warren, Lewis T.....2936 Belle Plaine
Weeks, Patrick H. (S).....119 E. Sixth St.
Weiss, Albert E.....125 E. Fifth St.
Zalac, Donald A.....732 Pine St.

Weinstock, Adolph.....Rolling Prairie
Moosey, Louis .....Union Mills
Carter, William D. ..506 Roosevelt Rd., Walkerton
Rohrer, Bryce B. ....506 Roosevelt Rd., Walkerton
Benz, Owen F.....Wanatah

Westville

Constan, Evan.....Beatty Memorial Hospital
Dieter, William J.....Beatty Memorial Hospital
Hetman, Mitchell J.....Westville
Johnston, Donald D. (S)
Beatty Memorial Hospital
Matthew, John R.....Beatty Memorial Hospital
Meyer, Hans.....Beatty Memorial Hospital
Morton, David P.....Beatty Memorial Hospital
Oster, Jack H. .....Beatty Memorial Hospital
Salzburg, Herbert E.....Beatty Memorial Hospital
Sennett, Cecil M. (S)....Beatty Memorial Hospital
Smith, William M.....Beatty Memorial Hospital
Wygant, Marion D.....Beatty Memorial Hospital

LAWRENCE COUNTY

Bedford

Allen, L. Howard.....1622 24th St.
Austin, Richard P....209 Citizens Nat'l Bank Bldg.
Benham, Lawrence E...310 Stone City Bank Bldg.
Bridwell, Edgar .....1626 24th St.
Campbell, William T.....2900 W. 16th St.
Duncan, Raymond.....2900 W. 16th St.
Dusard, Joseph C....304 Citizens Nat'l Bank Bldg.
Edmonds, Kendrick.....1303 15th St.
Emery, Charles B.....1027 15th St.
Fountaine, Thomas J. .....1618 24th St.
Hammel, Howard T.....1501 J St.
Hawkins, Richard D.....2900 W. 16th St.
Kasting, Gerald ....206 Citizens Nat'l Bank Bldg.
Kerr, Donald M.....2900 W. 16th St.
Morrow, Robert J.....1317 L St.
Newland, Arthur E.....Masonic Temple
Noe, William R.....2900 W. 16th St.
Scherschel, John P.....1711 H St.
Waldo, Guy H.....2900 W. 16th St.
Wohlfeld, Julius B.....1222 15th St.
Woolery, Richard H.....1310 W. 16th St.

Hamilton, James R.....Mitchell
Oswalt, James T.....Mitchell
Robinson, William H. .....Mitchell

MADISON COUNTY

Alexandria

Gaunt, Everett W.....214 E. John
Leroy, Alvin G.....1309 N. Harrison St.
McClelland, Harry N.....118 E. Church St.
Overpeck, George H.....313 N. Harrison St.
Owen, Thomas F.....313 N. Harrison St.
Shafer, Richard H.....111 S. Harrison St.

Anderson

Aagesen, Walter J.....702 Citizens Bank Bldg.
Armington, Charles L...655 Anderson Bank Bldg.
Austin, Charles E.....1612 Westwood Ave.
Baughn, William L.....Guide Lamp
Beeler, Franklin K.....1931 Brown St.
Bixler, Donald P.....1931 Brown St.
Blassaras, Chris.....2005 Broadway
Bowers, Charles R.....207 Anderson Loan Bldg.
Brauchla, Carl H. (S).....117 W. 17th St.
Bridges, Alvin. .....1302 Madison Ave.
Brock, Earl E. (S).....412 Anderson Bank Bldg.
Buckles, David L.....St. John's Hospital
Bush, Edward R. .....704 E. 8th St.
Castetter, Gregory K. .....126 W. 12th St.
Dixon, Rex W.....934 W. 8th St.
Doenges, James L.....1931 Brown St.
Donaldson, Frank C.....1931 Brown St.
Drake, James R.....229 Citizens Bank Bldg.
Drake, John C.....604 Anderson Bank Bldg.
Drennen, Robert V. .....1424 E. 8th St.

Dulin, Basil B.....St. John's Hospital
Ellis, Seth W.....717 Anderson Bank Bldg.
Elsten, Aubrey W.....512 Anderson Bank Bldg.
Faust, Howard M., Jr....315 Anderson Bank Bldg.
Ferguson, Donald H.....402 Anderson Bank Bldg.
Fischer, Warren E.....St. John's Hospital
Gante, Henry W. (S).....2005 Nichol Ave.
Hart, William D.....126 W. 12th St.
Hensler, Benton M.....1709 Nichol Ave.
Irwin, Seth H. (S) .....2209 Cedar St.
Jarrett, Paul E.....315 Citizens Bank Bldg.
Jones, Albert T.....1307 Park Road
Jones, David G.....126 W. 12th St.
Jones, Horace E.....1110 Meridian St.
Kelly, Wendell C.....704 E. Eighth St.
Kiely, John T.....1931 Brown St.
King, Joseph W.....1110 N. Meridian St.
Kopp, Otis A.....333 Jackson St.
Kopp, William R.....333 Jackson St.
Lamey, James L.....447 Citizens Bank Bldg.
Lamey, Paul T.....423 Citizens Bank Bldg.
Land, Richard N.....523 Citizens Bank Bldg.
Larmore, Joseph L.....612 Anderson Bank Bldg.
Larmore, Sarah H.....1301 Winding Way
Litzenberger, Sam W.....610 Citizens Bank Bldg.
Long, Paul L.....710 Anderson Bank Bldg.
McDonald, Virgil G. (S).....1110 Meridian St.
Mathewson, Russell C. .....1010 Jackson St.
Meister, Doris (S).....315 W. 9th St.
Moneyhun, James E.....621 Citizens Bank Bldg.
Morris, Robert A.....1309 Park Road
Neale, Alfred E.....1931 Brown St.
Nesbit, Leonard L.....415 Citizens Bank Bldg.
Patterson, William K.....713 Anderson Bank Bldg.
Pierce, Fredrick H. .....Delco Remy Div.
Polhemus, Warren C.....1803 Pearl St.
Quickel, Daniel S. (S).....608 Central Way
Reed, Roger R.....412 Anderson Bank Bldg.
Rosenbaum, Lloyd E.....647 Citizens Bank Bldg.
Ross, Guy E.....1931 Brown St.
Rozelle, Clarence V.....611 Citizens Bank Bldg.
Sharp, William L.....449 Citizens Bank Bldg.
Sheldon, Suel A.....508 Anderson Bank Bldg.
Stamper, Joseph H.....412 Anderson Bank Bldg.
Stamper, Robert J.....412 Anderson Bank Bldg.
Starks, William O.....507 Citizens Bank Bldg.
Stinson, William M.....333 Jackson St.
Swan, Richard C.....Delco Remy
Wagoner, John R.....708 Anderson Bank Bldg.
Webb, Harry D.....515 Citizens Bank Bldg.
Weiss, Louis L.....1225 N. Madison
Wilder, Gordon B.....338 W. Eighth St.
Williams, Francis M.....1132 Central Ave.
Williams, Robert H.....1132 Central Ave.
Wright, Cecil S.....207 Beverly Terrace

Elwood

Buechler, William F.....1817 S. A St.
Drake, Marion C.....1201 Main St.
Fitzpatrick, Harry W. (S)...1309 S. Anderson St.
Hanson, Martin F.....1102 S. Anderson St.
Hoppenrath, William H. (S).....1300 Main St.
Laudeman, Walter A.....1515 N. A St.
Oldag, George E.....1301½ Main St.
Ploughe, Ralph R.....517 S. Anderson St.
Scea, Wallace A.....1601 S. Anderson St.
Ulrey, Robert P.....1201 Main St.

Austin, Maynard A.
3900 Washington Ave., Evansville

Ferrell, Mars B. .....Fortville
Bishop, Harry A.....Frankton
Ridgway, Alton H.....Lapel
Rinne, John I. (S).....Lapel
Ayres, Kenneth D. .....R. R. 1, Markleville
Williams, Robert D.....Markleville
Hammer, Jay W. .....Middletown
Reynolds, Ralph E. .....Middletown
Keller, Frank G..Peabody Home, North Manchester
Advincula, Luis .....Box 28, Pendleton
Leahy, Howard J.....103 E. State St., Pendleton
McLaughlin, Calvin P.
200 W. State St., Pendleton
Van Ness, William C.....Summitville

MARION COUNTY

Beech Grove

Berger, Morley.....902 Main St.
Christie, Marvin C.....3655 S. Sherman Dr.
Dill, Charles W.....3655 S. Sherman Dr.
Kim, Young D.....136 N. 17th St.
Ramage, Walter F.....244 S. First St.
Reilly, Eva F.....St. Francis Hospital
Zerfas, Charles P. A.....926 Main St.

Kime, Edwin N. (S)
1007 Greenwood Ave., Bloomington
Hade, Frederick L. (S)
8925 W. Washington St., Bridgeport
Zerfas, Leon G.....R. R. 1, Camby
Hasewinkel, Carroll W....R. R. 2, Box 354, Carmel

Indianapolis

A

Addleman, Robert H.....5540 Woodside Dr. (8)
Adkins, Harold C.....409 E. 30th St. (5)
Akre, Philip R....Marion Co. General Hospital (7)
Albertson, Frank P.....3544 W. 16th St. (22)
Aldrich, Harry D.....201 Hume Mansur Bldg. (4)
Aldrich, Howard.....4316 E. Washington St. (1)
Alexander, Ezra D.....617 Indiana Ave. (2)
Alig, Vincent B. .....1815 N. Capitol Ave. (2)
Allen, Donald R.....Sunnyside Sanitarium (26)
Allen, Robert K.....3202 N. Meridian St. (8)
Alvis, Edmond O.....320 Hume Mansur Bldg. (4)
Anderson, James W.....623 N. West St. (2)
Anderson, John T.....3349 Georgetown Rd. (24)
Anderson, Wendell C.
Indiana State Board of Health,
1330 W. Michigan St. (7)
Anshutz, William M. .....Methodist Hospital (7)
Antreasian, Berj .....4829 E. 38th St. (18)
Appel, Richard H.....320 Hume Mansur Bldg. (4)
Arbogast, John L.....I. U. Medical Center (7)
Arbuckle, William E. (S)....1150 S. Sheffield (21)
Armer, Robert M.....Riley Hospital (7)
Armstead, John W.....2140 N. Capitol Ave. (2)
Arnold, Aaron L.....607 E. 38th St. (5)
Arnold, Robert D.....3419 E. 10th St. (1)
Aronson, Sidney S.....618 Hume Mansur Bldg. (4)
Aust, Charles H.....1119 N. Linwood (1)
Avery, George O.....17 S. Traub (22)

B

Bachmann, Arnold J.... 3440 N. Meridian St. (8)
Badenhauser, Walter E., Jr.
St. Vincent's Hospital (7)
Baird, Melvin S.....17½ W. 22nd St. (2)
Bakemeier, Otto H...5503 E. Washington St. (19)
Bakemeier, Robert E..5503 E. Washington St. (19)
Balch, James F. Jr.....I. U. Medical Center (7)
Balch, James F.....709 Hume Mansur Bldg. (4)
Ball, Joseph E.....4312 E. 10th St. (1)
Banister, Revel F. (S).....2958 Central Ave. (5)
Banks, Horace M. (S)
3631 Forest Manor Ave. (18)
Baptisti, Arthur, Jr.
Marion Co. General Hospital (7)
Barden, Tom P..Marion Co. General Hospital (7)
Barry, Maurice J. (S).. ...501 Doctors' Bldg. (4)
Bartle, James L.....7450 Pendleton Pike (26)
Bartley, Max D.....607 Hume Mansur Bldg. (4)

Barton, David M.....I. U. Medical Center (7)
Bastnagel, William F.....3602 N. Meridian St. (8)
Batman, Gordon W.....1815 N. Capitol Ave. (2)
Battersby, J. Stanley....I. U. Medical Center (7)
Batties, Paul A.....2142 N. Capitol Ave. (2)
Bauer, Thomas B.... 408 Hume Mansur Bldg. (4)
Baumeister, Herbert E.....4421 E. 75th St. (20)
Baxter, John P.....1633 N. Capitol Ave. (2)
Beach, Robert R.....2630 E. 10th St. (1)
Beaver, Howard W.....8 E. Troy (3)
Beck, Evart M.....915 E. 38th St. (5)
Becker, Harry G.....6060 College Ave. (20)
Beeler, John W.....712 Hume Mansur Bldg. (4)
Beeler, Raymond C. (S)
712 Hume Mansur Bldg. (4)
Belshaw, George.....5317 E. 16th St. (18)
Belt, James H.....6225 Broadway (20)
Benedict, Paul F.....3941 Meadows Dr. (5)
Bennett, Ivan F.
Lilly Clinic, Marion Co. General Hospital (7)
Berman, Edward J...920 Hume Mansur Bldg. (4)
Berman, Jacob K.....920 Hume Mansur Bldg. (4)
Berry, John M.....7841 White River Dr. (40)
Beverland, Malon E. (S)
3036 E. Washington St. (1)
Bibler, Lester D. .....1815 Capitol Ave. (2)
Bill, Robert O.....2901 N. Meridian St. (8)
Black, Henry R...Marion Co. General Hospital (7)
Blackford, Florence.....5909 E. 10th St. (19)
Blackford, Ralph E.....5909 E. 10th St. (19)
Blackwell, Donald S.....1815 N. Capitol Ave. (2)
Blake, Albert L.....1802 N. Illinois St. (2)
Blatt, A. Ebner.....3400 N. Meridian St. (8)
Bloemker, Edward F.....2729 Shelby St.(3)
Boggs, Eugene F.....2901 N. Meridian St. (8)
Boling, Grover C.....1440 E. 46th St. (5)
Bomalaski, Martin D...5538 N. Keystone Ave. (20)
Bond, George S. (S)....1221 N. Delaware St. (2)
Bond, Virginia.....R. R. 17, Box 364 (23)
Bond, William H.....I. U. Medical Center (7)
Bonsett, Charles A.....902 Hume Mansur Bldg. (4)
Booher, Norman R.....447 E. 38th St. (5)
Booher, Olga Bonke.....447 E. 38th St. (5)
Booker, Harold E. .....4901 Norwaldo (5)
Booth, Boynton H....707 Hume Mansur Bldg. (4)
Booze, James H. ....Marion Co. General Hosp. (7)
Bowers, George W. .....Methodist Hospital (7)
Bowers, John A...Marion Co. General Hospital (7)
Bowman, George W. (S).....1101 W. 10th St. (7)
Boyer, Floyd A.....442 N. Drexel Ave. (1)
Brady, John P. .....I. U. Medical Center (7)
Brady, Thomas A. .....1815 N. Capitol Ave. (2)
Brayton, John R.....704 Underwriters Bldg. (4)
Brayton, Lee .....3930 N. Illinois St. (8)
Brickley, Harry D.....605 Hume Mansur Bldg. (4)
Brickley, Richard A...605 Hume Mansur Bldg. (4)
Briggs, Robert W.....2140 N. Capitol (2)
Brillhart, James R.....3120 N. Meridian St. (8)
Brodie, Donald W.....817 C. of C. Bldg. (4)
Brooks, Fred R., Jr.....3349 Georgetown Rd. (24)
Brown, Archie E.....1220 S. Belmont Ave. (21)
Brown, David E.....1944 N. Capitol Ave. (2)
Brown, DeWitt W.....1633 N. Capitol Ave. (2)
Brown, Frances T.....2126 N. Talbot Ave. (2)
Brown, Frank M.....2875 Clifton (23)
Brown, Gordon T.....3989 Meadows Drive (5)
Brown, Thomas C. .....8760 Driftwood Dr. (40)
Brown, Wendell E.....3426 N. Meridian St. (8)
Browning, James S. .....3120 N. Meridian St. (8)
Browning, William M.....3426 N. Meridian St. (8)
Brownley, Emma J.....5101 W. 13th St. (24)
Bruce, Reginald A.....848 Indiana Ave. (2)
Brueckman, F. Robert
1815 N. Capitol Ave #401 (2)
Bruetsch, Walter L...3000 W. Washington St. (22)
Burdette, Harold F.....3202 N. Meridian (8)
Burghard, Rolla D.....4829 E. 38th St. (18)
Butler, John O.....234 E. Southern Ave. (25)
Butler, Robert M.....3426 N. Meridian St. (8)

C

Cahn, Hugo M.....418 E. 30th St. (5)
Caldwell, Marilyn R.....111 E. 53rd St. (20)
Call, Herbert F.....2901 N. Meridian (8)
Campbell, H. Edwin, Jr..St. Vincent's Hospital (7)
Campbell, John A.....I. U. Medical Center (7)
Campbell, Robert L.....1100 W. Michigan St. (7)
Canaday, James W. (S).....1229 Prospect St. (3)
Cantwell, Edgar R. .....I. U. Medical Center 7)
Caplin, Irvin .....1815 N. Capitol Ave. (2)
Caplin, Samuel S.....4525 Indianola (5)
Carson, Wayne .....1802 N. Illinois St. (2)
Carter, James E. .....I. U. Medical Center (7)
Carter, Oren E.....668 E. 38th St. (5)
Chattin, William R.....4829 E. 38th St. (18)
Chen, Ko Kuei
Eli Lilly & Co., 740 S. Alabama St. (6)
Chen, Thomas T. Y...Marion Co. General Hosp. (7)
Chernish, Stanley M.
Marion Co. General Hospital (7)
Chevalier, Robert A.
Marion Co. General Hospital (7)
Childress, Richard H.....I. U. Medical Center (7)
Chivington, Paul V...407 Hume Mansur Bldg. (4)
Chroniak, Walter .....41 N. Shortridge Rd. (19)
Clark, Cecil P.....922 Hume Mansur Bldg. (4)
Clark, George A.....922 Hume Mansur Bldg. (4)
Clark, Lawson J.....3736 N. Delaware St. (5)
Clevinger, William G.....1610 Auburn St. (24)
Close, W. Donald.....I. U. Medical Center (7)
Coates, Jacqueline.....2060 N. Senate Ave. (2)
Coggeshall, Warren E.....3524 N. Meridian St. (8)
Cohn, Alvin F.....1120 Southview Dr. (27)
Collins, Hubert L.....985 N. Arlington Ave. (19)
Collins, Robert C.....3414 Clifton (23)
Conley, Joseph L. (S)..2443 E. Washington St. (1)
Conway, Chester C.....4402 E. New York St. (1)
Conway, Glenn.....1620 S. East St. (25)
Cornacchione, Matthew.....814 S. East St. (25)
Cortese, James V.....435 S. East St. (25)
Cortese, Thomas A.....435 S. East St. (25)
Costin, Robert L.....I. U. Medical Center (7)
Couch, Rex D.....1100 W. Michigan St. (7)
Coughenour, J. Robert....2809 S. Holt Road (41)
Countryman, Frank W.....1815 N. Capitol Ave. (2)
Craft, Kenneth L. (S).1002 Hume Mansur Bldg. (4)
Crawford, John A.....321 Hume Mansur Bldg. (4)
Cregger, Irby E...Marion Co. General Hospital (7)
Cripe, Jerome H. .....I. U. Medical Center (7)
Cronick, Charles H. ..3000 W. Washington St. (22)
Cross, David G.....1002 Troy Ave. (3)
Culbertson, Clyde G.
Eli Lilly & Co., 740 S. Alabama St. (6)
Cullen, Paul K.....422 Hume Mansur Bldg. (4)
Culloden, William G.....710 E. 46th St. (5)
Cunningham, Gene C.
Eli Lilly & Co., 740 S. Alabama St. (6)
Cure, Charles W.....1815 N. Capitol Ave. (2)
Currie, Robert W.....512 E. 57th St. (20)
Curry, R. Louis.....3375 Forest Manor (18)
Cuthbert, Marvin P.....3400 N. Meridian (8)
Czenkusch, Helen G.....5101 W. 13th St. (24)

D

Dale, Robert T.....I. U. Medical Center (7)
Daley, Edward H.....1502 N. Emerson (18)
Dallas, Fred R.....5317 E. 16th St. (18)
Dallas, Mary E.
V. A. Hospital, 1481 W. 10th St. (7)
Dalton, William W.....422 Hume Mansur Bldg. (4)
Daly, Joseph M.....234 E. Southern Ave. (25)
Daniel, John C. (S)..1008 Hume Mansur Bldg. (4)
Davidson, Dale A.....1802 N. Illinois St. (2)
Davidson, N. Cort.....3233 N. Meridian St. (8)
Davis, Bennie L.....2426 Northwestern Ave. (23)
Davis, Margaret M.....Methodist Hospital (7)
Davis, Sam J. .....908 Hume Mansur Bldg. (4)
Deal, Eleanor H...4909 W. 15th St. Speedway (24)

Dearmin, Robert M.....3233 N. Meridian St. (8)
DeArmond, Murray.....1815 N. Capitol Ave. (2)
Deever, John W.....4131 Shelby St. (3)
Deitch, Robert D.....5320 Penway St. (24)
Dennison, Alfred D., Jr...3400 N. Meridian St. (8)
Denny, Forrest L.....3351 W. 10th St. (22)
Denny, James W.....25 N. Ritter Ave. (19)
Des Jean, Paul A.....4301 E. 38th St. (18)
DeWees, Dwight L.....302 N. Bradley Ave. (1)
DeWester, Gerald M. ....3037 S. Meridian St. (27)
Dickson, Carolyn L.....501 N. West St. (2)
Dill, Myron K.....3120 N. Meridian St. (8)
Dilts, Robert L.....2521 E. 38th St. (18)
Dintaman, Paul G.....703 Hume Mansur Bldg. (4)
Donahue, James M.....I. U. Medical Center (7)
Donato, Albert N.....1429 Shelby St. (3)
Doran, J. Hal .....720 Hume Mansur Bldg. (4)
Doss, Jerome F...Marion Co. General Hospital (7)
Doty, James R. Jr.
Marion Co. General Hospital (7)
Doughty, Samuel R., Jr.
5817 N. Dearborn St. (20)
Douglas, William T.....I. U. Medical Center (7)
Dowd, Joseph A.....6177 College Ave. (20)
Drew, Arthur L. Jr.....I. U. Medical Center (7)
Dryden, Gale E.....5835 N. Tacoma (20)
Duncan, Stuart J..... 3037 S. Meridian St. (27)
Duncan, William A.....1221 E. 86th St. (40)
Dupes, Lowell E.
V. A. Regional Office, 36 S. Penn. St. (4)
Dyar, Edwin W.....3202 N. Meridian St. (8)
Dyke, Richard W..Marion Co. General Hospital (7)
Dyken, Mark L.....I. U. Medical Center (7)
Dzenitis, Andrievs J.....Methodist Hospital (7)

E

Earp, Evanson B.....717 Hume Mansur Bldg. (4)
Eastman, Joseph R., Jr.
514 Merchants National Bank Bldg. (4)
Eaton, Edwin R.....5505 N. Keystone Ave. (20)
Eaton, Lyman D.....5505 N. Keystone Ave. (20)
Ebert, J. Wayne.....1125 Southview Dr. (27)
Eberwein, John H. (S)....2322 Wheeler Ave. (18)
Eckberg, Theodore J.....I. U. Medical Center (7)
Egbert, Herbert L.....5317 E. 16th St. (18)
Eicher, Palmer O.....3400 N. Meridian St. (8)
Eikenberry, Hugh W...616 Bankers Trust Bldg. (4)
Eldridge, Gail E.....1440 E. 46th St. (5)
Elkins, James P.....234 E. Southern Ave. (25)
Ellis, William N.....1402 N. Olney St. (1)
Emhardt, John T.....1621 S. East St. (25)
Emhardt, John W. A. (S)
5424 Washington Blvd. (20)
Ensminger, Leonard A. (S)
1321 N. Meridian St. (2)
Evans, Frederick H.....2140 N. Capitol (2)
Evans, Paul V....Marion Co. General Hospital (7)
Everly, Ralph V.....668 E. 38th St. (5)

F

Failey, Robert B.....I. U. Medical Center (7)
Farrell, Joseph T.....2807 E. Michigan St. (1)
Fausset, C. Basil.....2901 N. Meridian St. (8)
Ferry, Francis A.....1429 Shelby St. (3)
Fiederlein, Frederick J.
902 Hume Mansur Bldg. (4)
Finneran, Joseph C.....1802 N. Illinois St. (2)
Fisch, Charles....Marion Co. General Hospital (7)
Fischer, A. Alan.....1745 Howard St. (21)
Fitzgerald, William J.
303 Fountain Square Theatre Bldg. (3)
Flanagan, Paul M.....3311 N. Meridian St. (8)
Flanders, Robert.....3202 N. Meridian St. (8)
Flanigan, Meredith B.....3305 Rutledge (8)
Fleischl, Herbert.....Central State Hospital (22)
Flick, John J.....1443 N. Pennsylvania St. (2)
Flora, Joseph O.....4317 W. Washington St. (21)
Folkening, Norval C.....234 E. Southern Ave. (25)
Forbes, Robert S.....3043 S. Holt Rd. (4)
Foreman, Thomas M.....I. U. Medical Center (7)
Forry, Frank (S).....I. U. Medical Center (7)
Fortuna, Frank W.....5602 S. Madison Ave. (27)
Foster, Lee N.....St. Vincent's Hospital (7)
Foster, Ray D.....1944 N. Capitol Ave. (2)
Fouts, Paul J.....623 Hume Mansur Bldg. (4)
Franklin, William L....508 Hume Mansur Bldg. (4)
Freed, Carl A.....2966 Kessler Blvd., N. Dr. (22)
Freeman, Leslie W.....I. U. Medical Center (7)
Freeman, Max E.....1745 Howard St. (21)
Fromhold, Willis A....611 Bankers Trust Bldg. (4)
Fry, Robert D.....517 Hume Mansur Bldg. (4)
Fulton, William H.....415 Woodhill Dr. (27)
Funkhouser, Elmer (S) .702 Underwriters Bldg. (4)

G

Gabovitch, Edward R. .....401 E. 34th St. (5)
Gabrielsen, Ted H.....Methodist Hospital (7)
Gaddy, Euclid T.....2602 W. Washington St. (22)
Gaddy, Nelson D.....2602 W. Washington St. (22)
Gambill, William D.....1633 N. Capitol Ave. (2)
Gammieri, Robert L.....661 E. 49th St. (5)
Garber, J. Neill.....1815 N. Capitol Ave. (2)
Garceau, George J.....508 Hume Mansur Bldg (4)
Gard, Daniel A...Ford Motor Co., Box 19106 (19)
Gardiner, Sprague H.....I. U. Medical Center (7)
Gardner, Austin L.....3120 N. Meridian St. (8)
Gardner, Buckman.....St. Vincent's Hospital (7)
Garfield, Martin D.....3705 College Ave. (5)
Garner, W. Stanley.....2704 E. 62nd St. (20)
Garrett, John D. (S).....402 N. Meridian St. (4)
Garrett, Robert A.....I. U. Medical Center (7)
Geider, Roy A.....1525 Prospect St. (3)
Geisler, Hans E.....Methodist Hospital (7)
Genna, Mary E. Miller..I. U. Medical Center (7)
Genovese, Pasquale
V. A. Hospital, 1481 W. 10th St. (7)
George, Charles L.....1121 E. 80th St. (20)
Gerig, Eldon L...Marion Co. General Hospital (7)
Gibson, Alois E.....St. Vincent's Hospital (7)
Gibson, Greta Maxine.5744 Broadway Terrace (20)
Gick, Herman H. (S)....2705 E. Michigan St. (1)
Gifford, Fred E.....710 Hume Mansur Bldg. (4)
Gillespie, Charles F.....3400 N. Meridian St. (8)
Gillespie, Jacob E.....523 Hume Mansur Bldg. (4)
Gillim, Parvin D.....I. U. Medical Center (7)
Ginsberg, Stewart T.....1315 W. Tenth St. (7)
Glendening, John L. (S)
7202 N. Meridian St. (20)
Godwin, Donald W.....Methodist Hospital (7)
Goldenberg, Norman S.....Coleman Hospital (7)
Goldman, Samuel....2117 W. Washington St. (21)
Gooding, Richard A.....I. U. Medical Center (7)
Gormley, Joseph J.....2327 Lafayette Rd. (22)
Gosman, James H.....2901 N. Meridian St. (8)
Graham, Edward W.
V. A. Hospital, 1481 W. 10th St. (7)
Graham, John D.....1802 N. Illinois St. (2)
Graham, William E.....St. Vincent's Hospital (7)
Gray, Kenneth L. ..1450 Main St., Speedway (24)
Grayson, Ted L.....1815 N. Capitol Ave. (2)
Green, Morris.....Riley Hospital (7)
Greene, Morgan E.....1621 S. East St. (25)
Gregory, Robert L.....1743 Shelby St. (3)
Greist, John H.....2901 N. Meridian St. (8)
Griffin, Leslie W.
Allison Div., General Motors, Box 894 (6)
Griffith, Richard S.
Lilly Clinic, Marion Co. General Hospital (7)
Griffith, Ross E.....401 E. 34th St. (5)
Grimes, Hubert N.....2809 E. Michigan St. (1)
Grisell, Ted L.....5317 East 16th St. (18)
Gruber, Charles M.
Lilly Clinic, Marion Co. General Hospital (7)

H

Habegger, Elmer D.....1802 N. Illinois St. (2)
Hadley, David.....702 Hume Mansur Bldg. (4)
Hagan, Marion L.....Marion Co. Gen. Hospital (7)
Haggard, Edmund B....5914 N. Emerson Ave. (20)
Hagman, Norman A...Marion Co. Gen. Hospital (7)
Hall, Frank M.....100 N. Senate Ave. (4)
Hall, Jack H.....Methodist Hospital (7)
Hamer, Homer G. (S)....1711 N. Capitol Ave. (7)
Hamilton, Howard B.....764 S. Emerson Ave. (3)
Hampshire, Donald R..1443 N. Pennsylvania St. (2)
Hancock, John G.....2226 W. Michigan St. (22)
Hann, Eldon C.....1633 N. Capitol Ave. (2)
Hanna, Thomas A.....1608 N. Lynhurst Dr. (24)
Hansell, Robert M.....6049 E. Washington St. (1)
Harcourt, Allan K.....812 C. of C. Bldg. (4)
Harcourt, Robert S.
Marion Co. General Hospital (7)
Harding, M. Richard...308 Hume Mansur Bldg. (4)
Harding, Myron S.....308 Hume Mansur Bldg. (4)
Hare, Earl H. (S)
Indiana State Board of Health 1330 W. Michigan St. (7)
Hare, Laura.....404 Hume Mansur Bldg. (4)
Harger, Robert W.....804 Hume Mansur Bldg. (4)
Harold, Albert H. (S)...7510 Allisonville Rd. (20)
Harold, Norris E. (S).....3545 N. Denny St. (18)
Harris, Carl B.....319 Hume Mansur Bldg. (4)
Harris, Paul N.
Eli Lilly & Co., 740 S. Alabama St. (6)
Harvey, Verne K., Jr.
Indiana State Board of Health 1330 W. Michigan (7)
Harvey, Verne K., Sr.
V. A. Hospital, 1481 W. Tenth St. (7)
Haslinger, Clarence J....2151 E. New York St. (1)
Hatfield, Jack J.....5538 N. Keystone Ave. (20)
Hatfield, Nicholas W.....5851 E. 54th Pl. (26)
Hathaway, C. Bishop.....Methodist Hospital (7)
Hawk, James H.....3736 N. Delaware St. (5)
Hawtof, David B.....I. U. Medical Center (7)
Haymond, Joseph L.....301 E. 38th St. (5)
Haynes, John T. .....Methodist Hospital (7)
Hays, Everett L.....2607 Manker Ave. (3)
Healey, Robert J.....3602 N. Meridian St. (8)
Hedrick, Philip W.....1221 E. 86th St. (40)
Heimburger, Robert F.....I. U. Medical Center (7)
Heinrichs, Harry H. (S)..2135 N. Alabama St. (2)
Henderson, Francis G.
Eli Lilly & Co., 740 S. Alabama St. (6)
Henderson, Roscoe C..3131 Northwestern Ave. (23)
Henderson, William P.
520 Hume Mansur Bldg. (4)
Hendricks, Fred A.....6921 N. Keystone Ave. (20)
Hendricks, John W.....911 Hume Mansur Bldg. (4)
Henry, Russell S.....725 Hume Mansur Bldg. (4)
Hepburn, C. K.....1633 N. Capitol Ave. (2)
Hetherington, John A...1633 N. Capitol Ave. (2)
Heubi, John E.....668 E. 38th St. (5)
Hickam, John B.....I.U. Medical Center (7)
Hickman, Jack W..Marion Co. General Hospital (7)
Hickman, Walter F. (S)....1210 Oliver Ave. (21)
Hicks, Murwyn L.....1502 N. Emerson (19)
Hicks, Wilbur P.....310 W. 40th St. (8)
Hill, James K.....4701 W. 30th St. (24)
Himler, James M.....809 Underwriters Bldg. (4)
Hines, Don C.
Eli Lilly & Co., 740 S. Alabama St. (6)
Hodges, Fletcher (S).....3160 N. Penn. St. (5)
Hoffman, Herman.....650 E. 38th St. (5)
Hofmann, J. William (S)
323 Hume Mansur Bldg. (4)
Hogan, Michael A.....6214 Broadway (20)
Holland, William M.....I. U. Medical Center (7)
Holman, Jerome E., Sr. (S)...3315 E. 10th St. (1)
Holman, Jerome E., Jr.....3315 E. 10th St. (1)
Hood, Ainslee A.....3205 Shelby St. (27)
Horwitz, Thomas .....421 Hume Mansur Bldg. (4)
Howell, Arthur .....2060 Boulevard Pl. (2)
Howell, Joseph D.....760 Bankers Trust Bldg. (4)
Howell, Robert D.....1802 N. Illinois St. (2)
Hoyt, Lester H.....Methodist Hospital (7)
Hoyt, Millard L.....612 Hume Mansur Bldg. (4)
Hubbard, Jesse D.....I. U. Medical Center (7)
Huber, Carl P.....I. U. Medical Center (7)
Huddle, John R.....2963 N. Sherman Dr. (18)
Hudson, Foster J.....3440 N. Meridian St. (8)
Hull, DeWayne L.....I. U. Medical Center (7)
Hull, Ronald H.....1815 N. Capitol Ave (2)
Hummons, Francis D..... 729½ N. West St. (2)
Hurteau, William W.....Methodist Hospital (7)
Huse, William M.....703 Hume Mansur Bldg. (4)

I

Irvine, William O.....St. Vincent's Hosp. (7)
Irwin, Glenn W., Jr.....I. U. Medical Center (7)
Iske, Paul G.....420 Hume Mansur Bldg. (4)

J

Jackson, Frederick E. (S)..2125 N. Park Ave. (2)
Jackson, James W. (S).....463 W. 32nd St. (8)
Jaeger, Alfred S. (S)..3057 Washington Blvd. (5)
Jaquith, Orville S. (S).....261 Blue Ridge Rd. (8)
Jay, Arthur N.....3400 N. Meridian St. (8)
Jay, James M.....1633 N. Capitol Ave. (2)
Jenkins, Robert E.....3311 N. Meridian St. (8)
Jennings, Frank L. (S)
V. A. Hospital, 1481 W. Tenth St. (7)
Jewett, Joe H.....3120 N. Meridian St. (8)
Jobes, James E.....110 N. Illinois St., #413 (4)
Jobes, Norman E. (S).....4245 Knollton Rd. (8)
Johnson, Earl H.....I. U. Medical Center (7)
Johnson, Thomas W.....1802 N. Illinois St. (2)
Jones, Allen W.....6060 College Ave. (20)
Jones, David E.....828 C. of C. Bldg. (4)
Jones, Francis P.....4212 E. Michigan St. (1)
Jones, George L.....8933 Southeastern Ave. (19)
Jones, Gordon C.....1517 N. Emerson (19)
Jontz, Richard L.....712 Hume Mansur Bldg. (4)
Joseph, Rex M. .....59 E. Troy St. (3)
Jowitt, Richard H.....1502 N. Emerson (19)
Judd, Donald R.....I. U. Medical Center (7)
Judd, Russell L.....I. U. Medical Center (7)
Judson, Walter E.....I. U. Medical Center (7)

K

Kahler, Maurice V.....2638 Kessler Blvd. (22)
Kahn, Alexander J.....3120 N. Meridian St. (8)
Kahn, Howard L.....3120 N. Meridian St. (8)
Kaiser, George C.
V. A. Hospital, 1481 W. Tenth St. (7)
Kalb, Everett L.....5934 E. 21st St. (18)
Kammen, Leo.....3202 W. 16th St. (22)
Karsell, William A.....3989 Meadows Dr. (5)
Katterjohn, James C...313 Hume Mansur Bldg. (4)
Kauffman, Nelson N.....2901 N. Meridian St. (8)
Kebel, Arthur P.....St. Vincent's Hospital (7)
Keenan, George B.....3225 Shelby St. (27)
Keenan, Reid L.....1815 N. Capitol Ave. (2)
Keever, Charles H.....5214 College Ave. (20)
Keiser, Venice D.....5709 Broadway (20)
Kelly, Don E.....702 Underwriters Bldg. (4)
Kennedy, Hunter F.....1105 Prospect St. (3)
Kennedy, Joseph T.....1502 N. Emerson (19)
Kenney, David B.....6032 E. 10th St. (19)
Kenzler, Jack I.....205 Hume Mansur Bldg. (4)
Kerr, Harry R.....2817 E. Washington St. (1)
Ketcham, Jane M. (S).....3906 Ruckle St. (5)
King, Harold .....I. U. Medical Center (7)
King, William E.....811 Hume Mansur Bldg. (4)
Kingsbury, John K. (S)
5462 E. Washington St. (19)
Kinzel, Robert J. W.....3120 N. Meridian St. (8)
Kirkhoff, Paul J.....5317 E. 16th St. (18)

Kirklin, Oren L.....1802 N. Illinois St. (2)
Kirtley, William R.
Eli Lilly & Co., 740 S. Alabama St.
Kissel, Wesley A.
Larue Carter Hosp., 1315 W. Tenth St. (7)
Kitterman, Harry E.....5317 E. 16th St. (18)
Klain, Benjamin V.....4157 College Ave. (5)
Klatte, Eugene C.....I. U. Medical Center (7)
Klepinger, Carol A.....Methodist Hospital (7)
Kneidel, John H.....508 E. 38th St. (5)
Knowles, Charles Y.....5317 E. 16th St. (18)
Knowles, Robert P.....2901 N. Meridian St. (8)
Kohlstaedt, Karl C.
Eli Lilly & Co., 740 S. Alabama St. (6)
Kohlstaedt, Kenneth G.
Eli Lilly & Co., 740 S. Alabama St. (6)
Kooiker, John E.....1815 N. Capitol Ave. (2)
Koons, Karl M.....923 Hume Mansur Bldg. (4)
Kopecky, Robert R.....4131 Shelby St. (27)
Kornafel, L. H.....608 K. of P. Bldg. (4)
Kraft, Bennett.....760 Bankers Trust Bldg. (4)
Kriel, William B.....5630 W. Washington St. (21)
Kuntz, Herman W....611 Hume Mansur Bldg. (4)
Kurtz, Fred B. (S).....5520 N. Illinois St. (8)
Kurtz, Philip L.
Eli Lilly & Co., 740 S. Alabama St. (6)
Kwitny, Isadore J.....3400 N. Meridian St. (8)

L

LaDine, Clarence B.....2508 Station St. (18)
Lamb, Emmett B.....205 Hume Mansur Bldg. (4)
Lamb, Russell W.....205 Hume Mansur Bldg. (4)
Lamber, Chet K.....914 Hume Mansur Bldg. (4)
Lamkin, E. Henry Jr.....5525 N. Delaware St. (20)
Landwehr, Alfons.....Sunnyside Sanitorium (26)
Lane, Charlotte E.....1633 N. Capitol Ave. (2)
Lang, Erich K.....Methodist Hospital (7)
Langdon, Harry K. (S)
3264 N. Pennsylvania St. (5)
Laramore, Ward
V. A. Hospital, 1481 W. 10th St. (7)
Lashmet, Michael H...419 Hume Mansur Bldg. (4)
Lasich, Anthony R.....820 C. of C. Bldg. (4)
Lawler, George F.....3934 E. 10th St. (1)
Lawson, Allan J.....3740 Central Ave. (5)
Leasure, J. Kent (S).....3115 N. Meridian St. (8)
Leatherman, Harter L.....1531 Broadway (2)
Leffel, James M.....1633 N. Capitol Ave. (2)
Leffler, William T.....2141 E. 52nd St. (5)
LeMaster, Theodore R.
305 Hume Mansur Bldg. (4)
Leonard, Henry S. (S).303 Hume Mansur Bldg. (4)
Leser, Ralph U.....3233 N. Meridian St. (8)
Levi, Leon .....40 W. 38th St. (8)
Levin, Ralph T.....3400 N. Meridian St. (8)
Lewis, Paul S.....6357 Rockville Rd. (24)
Lewis, R. Earl.....2307 E. Raymond St. (3)
Lichtenberg, Melvin.....535 E. 38th St. (5)
Lidikay, Edward C.....3989 Meadows Dr. (5)
Lindenborg, Paul G. .3016 N. Arlington Ave. (18)
Lingeman, Raleigh E.....1944 N. Capitol Ave. (2)
Lingeman, Roger E.....2081 N. Emerson Ave. (18)
Link, Goethe (S).....608 K. of P. Bldg. (4)
Littlefield, Paul A.
4040 Crooked Creek Overlook (8)
Littlefield, Shirley D.
4040 Crooked Creek Overlook (8)
Lloyd, Frank P.....2416 N. Capitol Ave. (8)
Lochry, Ralph L. (S).....6134 Norwaldo (20)
Loehr, William M.....I. U. Medical Center (7)
Loomis, Norman S.....5230 N. Kenwood Ave. (8)
Lord, Glenn C.....104 E. 38th St. (5)
Louden, Robert W.....1221 E. 86th St. (40)
Loudermilk, Richard G...635 E. Kessler Blvd. (20)
Loughlin, Lawrence L.....1815 N. Capitol Ave. (2)
Love, George N.....5331 Washington Blvd. (20)
Lozow, David.....3941 Meadows Dr. (5)
Lucas, Clarence A., Jr.....2012 Boulevard Pl. (2)
Lukemeyer, George T.....I. U. Medical Center (7)
Lunsford, Thomas E.....1815 N. Capitol Ave. (2)
Lurie, Paul R.....I. U. Medical Center (7)
Luros, J. Theodore.....1633 N. Capitol Ave. (2)
Lybrook, William B....3731 N. Keystone Ave. (18)
Lynn, Gene E.....504 E. 48th St. (5)

M

MacCollum, M. Speers..St. Vincent's Hospital (7)
MacDougall, John D.....3941 Meadows Dr. (5)
McAlpine, Richard J...5704 N. Keystone Ave. (20)
McAree, Francis E...6016 E. Washington St. (19)
McBride, James S.....810 Hume Mansur Bldg. (4)
McCallum, Donald C. ....1815 N. Capitol Ave. (2)
McCallum, Joseph T. C. (S)....237 W. 46th St. (8)
McCartney, Donald H..918 Hume Mansur Bldg. (4)
McClain, Edwin S.....414 Hume Mansur Bldg. (4)
McCormick, Charles O., Jr.
3989 Meadows Dr. (5)
McGrath, Michael F.....1929 E. 38th St. (18)
McGuff, Paul E.....4829 E. 38th St. (18)
McIntyre, Charles J. (S)..3930 Carrolton Ave. (5)
McIntyre, James M.....2901 N. Meridian St. (8)
McKinley, A. David.....I. U. Medical Center (7)
McLain, Clarence R., Jr...I. U. Medical Center (7)
McLaren, Daniel E.....6000 E. 46th St. (26)
McMillan, Frederick G. (S)....420 E. 47th St. (5)
McQuiston, Ralph J.....608 Guaranty Bldg. (4)
McTurnan, Robert W.....5646 N. Illinois St. (8)
Mackey, Harry S. (S).....4309 Central Ave. (5)
Mackey, John E.....3400 N. Meridian St. (8)
Macri, Paul A.....Marion Co. Gen. Hosp. (7)
Madden, Robert J.....4612 E. Tenth St. (1)
Madtson, A. Ricks.....822 Hume Mansur Bldg. (4)
Magennis, Herbert L. (S)....3963 N. Tacoma (5)
Malcolm, Russell L., Jr.
Marion Co. General Hospital (7)
Manalan, Maurice M...5831 E. Washington St. (19)
Manders, Karl L.....3400 N. Meridian (8)
Manion, Marlow W.....601 Hume Mansur Bldg. (4)
Mann, Mortimer.....3426 N. Meridian St. (8)
Manning, K. Randolph....1815 N. Capitol Ave. (2)
Manzie, Michael W.....1633 N. Capitol Ave. (2)
Marks, Maurice I.....2901 N. Meridian St. (8)
Marsh, Carl M.....101 N. Shortridge Rd. (19)
Marshall, Albert L., Jr.
Indiana State Board of Health,
1330 W. Michigan St. (7)
Marshall, Cavins R. (S)..... 43 W. 30th St. (8)
Martin, Hugh E.
Pitman-Moore Co., 1200 Madison Ave. (6)
Martin, Loren H.....2626 W. Washington St. (22)
Martz, Bill L.
Lilly Clinic, Marion Co. General Hospital (7)
Martz, Carl D.....912 Hume Mansur Bldg. (4)
Marvel, Robert J.....3426 N. Meridian St. (8)
Masters, John M.....805 Hume Mansur Bldg. (4)
Masters, Robert J.....805 Hume Mansur Bldg. (4)
Matthew, W. Burleigh..518 Hume Mansur Bldg. (4)
Matthews, Bernard J.....4612 E. 10th St. (1)
Matthews, William M.....I. U. Medical Center (7)
Maxam, B. T.....3524 N. Meridian St. (8)
Mealey, John Jr.....I. U. Medical Center (7)
Megenhardt, Dennis S...1633 N. Capitol Ave. (2)
Meiks, Lyman T.....Riley Hospital (7)
Melin, John R.....1815 N. Capitol Ave. (2)
Melloh, Ardis F.....2821 E. 10th St. (1)
Mentendiek, Maurice H.
141 Buckingham Dr. (8)
Mericle, Earl W.....1633 N. Capitol Ave. (2)
Merrell, Paul .....420 Hume Mansur Bldg. (4)
Mershon, Jack B.....3508 W. 16th St. (22)
Mertz, John H. O.... ....1711 N. Capitol Ave. (7)
Michael, Isaac E....2966 Kessler Blvd., N. Dr. (20)
Middleton, Harvey N.....1828 N. Illinois St. (2)

Miller, Frank H.....201 Hume Mansur Bldg. (4)
Miller, Jerry R.....I. U. Medical Center (7)
Miller, John D.....Sunnyside Sanitorium (26)
Miller, John M.....I. U. Medical Center (7)
Miller, Raleigh S.....6211 College Ave. (20)
Miller, Roscoe E.....I. U. Medical Center (7)
Mitchell, George H...6049 E. Washington St. (19)
Moak, Glenn D.....3202 N. Meridian St. (2)
Moenning, John E.
Marion Co. General Hospital (7)
Montgomery, Ralph F.....St. Vincent's Hosp. (7)
Montgomery, William F.
904 Hume Mansur Bldg. (4)
Moore, Donald F.
Larue Carter Hospital, 1315 W. 10th St. (7)
Moore, Harold T.....5802 Allisonville Rd. (20)
Morchan, Samuel.....3769 College Ave. (5)
Morgan, Margaret E.....3400 N. Meridian St. (8)
Moriarty, John R.....5602 Madison Ave. (3)
Morrison, Lewis E.....603 Hume Mansur Bldg. (4)
Morton, Joseph L.....St. Vincent's Hosp. (7)
Morton, Walter P.....3434 Fall Creek Blvd. (5)
Moser, Rollin H.....3524 N. Meridian St. (8)
Moss, Bobby L.....1121 N. Arlington Ave. (19)
Moss, Harlan B.....1849 Nowland (1)
Moss, Herschel C.....401 E. 34th St. (5)
Mothersill, Mark H. (S).....3650 College Ave. (5)
Mouser, Robert W.....6201 Park Ave. (20)
Mullen, James B.....3120 N. Meridian St. (8)
Muller, Lullus P.....3120 N. Meridian St. (8)
Muller, Paul F.....3311 N. Meridian St. (8)
Muller, Victor H.....St. Vincent's Hosp. (7)
Myers, Charles W. (S)....R. R. 18, Box 256 (24)
Myers, Roy V.....1904 N. Rural St. (18)

N

Nagan, Robert F.....606 Hume Mansur Bldg. (4)
Nay, Richard M.....3524 N. Meridian St. (8)
Need, Louis T.....1927 S. Meridian St. (25)
Need, Richard L.....I. U. Medical Center (7)
Nester, Henry G.....307 City Hall (4)
Newman, Daniel M.....I. U. Medical Center (7)
Nicholas, Dennis J. .....4365 Wexford (26)
Nie, Louis W.....2901 N. Meridian St. (8)
Nohl, John M.....457 N. Emerson Ave. (19)
Nolin, Richard T.....6007 Michigan Rd. (8)
Nolting, Henry F. (S).....261 W. 40th St. (8)
Norman, William H....908 Hume Mansur Bldg. (4)
Norris, Max S.....510 Hume Mansur Bldg. (4)
Nourse, Myron H.....1711 N. Capitol Ave. (7)
Noveroske, Richard J.....I. U. Medical Center (7)
Nugent, Edwin J...Allison Div. GMC, Box 894 (6)
Nurnberger, John I.....I. U. Medical Center (7)

O

O'Brian, Earl J.....3041 Lafayette Rd. (22)
Ochsner, Harold C. .....3440 N. Meridian St. (8)
Offutt, Andrew C...Indiana State Board of Health,
1330 W. Michigan St. (7)
Olvey, Ottis N.....3769 Park Ave. (5)
Orders, Clarks E. (S)
4954 W. 15th St., Speedway (24)
Otten, Claude F.....812 C. of C. Bldg. (4)
Overley, Ross A.....Larue D. Carter Hospital,
1315 W. 10th St. (7)
Overley, Toner M., Jr.....I. U. Medical Center (7)
Owen, John E.....605 Hume Mansur Bldg. (4)
Owens, Tracy C.....2823 N. Meridian St. (8)

P

Pagedas, Tom C.....Methodist Hospital (7)
Palmer, Charman F.....3400 N. Meridian St. (8)
Palmer, Harley P.....Methodist Hospital (7)
Palmer, Paul E.....I. U. Medical Center (7)
Palmer, Robert M.....I. U. Medical Center (7)
Palmer, Robert W.....3400 N. Meridian (8)
Pandolfo, Harry.....234 E. Southern Ave. (25)
Parker, George F., Jr...1502 N. Emerson Ave. (19)
Parker, John F.....1706 E. Washington St. (1)
Parker, Portia.....2226 W. Michigan St. (22)
Parr, Robert L.....3043 E. 38th St. (18)
Paskind, Jacob....Marion Co. General Hospital (7)
Paulissen, George T.....741 Markwood Ave. (27)
Pearson, John S.....American United Life Ins. Co.,
30 W. Fall Creek Parkway (6)
Pebworth, Aubrey C. (S)..1625 W. Morris St. (21)
Peck, Franklin B., Jr.
Lilly Clinic, Marion Co. General Hospital (7)
Peirce, James D.
Eli Lilly & Co., 740 S. Alabama St. (6)
Perlov, Sylvan H.....5505 N. Keystone Ave. (20)
Permer, Erwin.....136 E. 30th St. (5)
Peterson, Deward D.
Marion Co. General Hospital (7)
Petranoff, Theodore V. (S)..515 N. Tibbs Ave. (22)
Pettijohn, Fred L. (S).....2460 Central Ave. (5)
Pfaff, Dudley A.
V. A. Regional Office, 36 S. Pennsylvania St. (4)
Phillips, David L.....605 E. 38th St. (5)
Pickett, Robert D.....3524 N. Meridian St. (8)
Pierce, Emmett, Jr.
Marion Co. General Hospital (7)
Pilcher, Jack E.....1802 N. Illinois St. (2)
Pittman, John N.....Methodist Hospital (7)
Platis, James M.....I. U. Medical Center (7)
Pontius, Edwin E.....Methodist Hospital (7)
Popplewell, Arvine G.
Marion Co. General Hospital (7)
Powell, Richard C.....I. U. Medical Center (7)
Pribble, Robert H.
Marion Co. General Hospital (7)
Price, Francis W.....1002 E. Troy Ave. (3)
Price, James O.....512 Hume Mansur Bldg. (4)
Pryor, Richard C.....6111 College Ave. (20)

Q

Quigley, Joseph B.....817 Hume Mansur Bldg. (4)

R

Rabb, Aaron....Marion Co. General Hospital (7)
Rabb, Frank M.....915 E. 38th St. (5)
Rabb, Harry S.....3139 E. 10th St. (1)
Raber, Robert M.....1633 N. Capitol Ave. (2)
Rader, George S.....301 Hume Mansur Bldg. (4)
Rafalski, Thomas A.....3120 N. Meridian St. (8)
Ragan, William D.....3400 N. Meridian St. (8)
Ralston, John D.....Central State Hosp. (22)
Ramsey, Frank B.....1802 N. Illinois St. (2)
Rapp, George F.....St. Vincent's Hosp. (7)
Rawls, George H.....1540 Columbia Ave. (2)
Records, John M.....Methodist Hospital (7)
Reed, Philip B.....1815 N. Capitol Ave. (2)
Rees, Russel C.....6114 E. Washington St. (19)
Reid, Charles A.....2445 Shelby St. (3)
Reisler, Simon (S)....318 Bankers Trust Bldg. (4)
Reuter, John W.....I. U. Medical Center (7)
Rhamy, Robert K.....I. U. Medical Center (7)
Rice, Frederic A.....7017 Pendleton Pike (26)
Rice, Raymond M.
Eli Lilly & Co., 740 S. Alabama St. (6)
Richardson, Thad T.....513 S. Sherman Dr. (3)
Richter, Arthur B.....720 Hume Mansur Bldg. (4)
Ridgeway, Ora W. (S).....411 E. 16th St. (2)
Ridolfo, Anthony S.
Eli Lilly & Co., 740 S. Alabama (6)
Riner, Jack K.....904 Hume Mansur Bldg. (4)
Ritchey, James O. (S).608 Hume Mansur Bldg. (4)
Ritter, Wayne L.....404 Hume Mansur Bldg. (4)
Robb, John A. .....238 Hume Mansur Bldg. (4)
Robertson, Ray B.....6118 E. Washington St. (19)
Rochlin, Isidore .....3202 N. Meridian St. (8)
Roesch, Ryland P.....5444 N. Illinois St. (8)
Roeske, Nancy A.....220 W. Beverly Dr. (5)

Rogers, Donald L.....3426 N. Meridian St. (8)
Rohn, Robert J.....I. U. Medical Center (7)
Roll, John W.....3628 N. Sherman Dr. (18)
Roller, Charles W. (S).....915 Hervey (3)
Romberger, Floyd T., Jr...3440 N. Meridian St. (8)
Rosenak, Bernard D...226 Hume Mansur Bldg. (4)
Rosenbaum, Irving, Jr.....401 E. 34th St. (5)
Rosenberg, Gabriel J.....3120 N. Meridian St. (8)
Ross, Alexander T.....I. U. Medical Center (7)
Roth, Bertram S.....6358 College Ave. (20)
Row, D. Hamilton.....906 Hume Mansur Bldg. (4)
Ruddell, Karl R. (S).....3202 N. Meridian St. (8)
Ruddell, Keith R.....3202 N. Meridian St. (8)
Rudesill, Cecil L. (S)..405 Hume Mansur Bldg. (4)
Rudesill, Robert L.....405 Hume Mansur Bldg. (4)
Rupel, Ernest.....5735 N. Meridian St. (8)
Russel, John R.....1815 N. Capitol Ave. (2)
Rust, Byron K.....3740 Central Ave. (5)
Rust, Roland B.....3939 Meadows Drive (5)
Ruth, Martin L.....4304 E. Washington St. (1)
Rutherford, Cyrus W. (S)
4601 N. Pennsylvania St. (5)
Ryan, Glen V.....2428 W. 16th St. (22)

S

Sage, Russell A.....1944 N. Capitol Ave. (2)
Salb, Max C.....823 C. of C. Bldg. (4)
Sanders, Harry M.....4829 E. 38th St. (18)
Schaffer, Edward V.....1815 N. Capitol Ave. (2)
Schechter, John S.....3400 N. Meridian St. (8)
Scheier, Emil W.....1542 Prospect St. (3)
Schlaegel, Theodore F., Jr.
419 Hume Mansur Bldg. (4)
Schlegel, Donald M.....1802 N. Illinois St. (2)
Schmalhausen, Ansel W.
920 Hume Mansur Bldg. (4)
Schmidt, Loren F.....605 Hume Mansur Bldg. (4)
Schmoyer, Maurice R....Community Hospital (19)
Schneider, Carl J.....1008 N. Beville Ave. (1)
Schneider, Paul A.....4829 E. 38th St. (18)
Schnute, Richard B.....I. U. Medical Center (7)
Schuchman, Abe.....3763 Broadway (5)
Schuchman, Gabriel.....3451 College Ave. (5)
Schuster, Dwight W.....1815 N. Capitol Ave. (2)
Schwarz, Anton
Pitman-Moore Co., 1200 Madison Ave. (6)
Scofield, John B.....3120 N. Meridian St. (8)
Scott, George E.....4110 Roland Rd. (8)
Scott, I. Winfield.....3400 N. Meridian St. (8)
Scott, John R.....6214 Broadway (20)
Scott, Robert P.....209 Hume Mansur Bldg. (4)
Scott, Samuel L.....6325 Guilford Ave. (20)
Seaman, Charles F....301 Hume Mansur Bldg. (4)
Sedam, Herbert L.....4548 College Ave. (5)
Segar, Louis H. (S).....818 E. 48th St. (5)
Segar, William E.....Riley Hosp. (7)
Sellmer, George W.....1221 E. 86th St. (40)
Sexson, Hiram T.....3731 N. Keystone (18)
Shafer, Marion R.....614 Hume Mansur Bldg. (4)
Shanafelt, Donald K.....1802 N. Illinois St. (2)
Shapiro, Burton J.....3440 N. Meridian St. (8)
Sheehan, Francis G....6049 E. Washington St. (19)
Shelley, Richard J.....6016 E. Washington (19)
Sherster, Harry.....1135 S. Meridian St. (25)
Shipley, Edward
Larue Carter Hospital, 1315 W. Tenth St. (7)
Shullenberger, Wendell A.
1815 N. Capitol Ave. (2)
Shumacker, Harris B., Jr...I. U. Medical Center (7)
Sicks, Okla W. .....607 E. 82nd St. (20)
Sidebottom, Earl W...507 Hume Mansur Bldg. (4)
Siderys, Harry.....3941 Meadows Dr. (5)
Siebe, Jack C.....4829 E. 38th St. (18)
Siersdorfer, Theodore N. (S)
5559 W. Morris St. (21)
Sigmond, Harvey W...321 Hume Mansur Bldg. (4)
Silver, Richard A.....712 Hume Mansur Bldg. (4)
Simmons, James E.....I. U. Medical Center (7)
Simms, J. Leon.....2453 Northwestern Ave. (23)
Simpson, William D...6049 E. Washington St. (19)
Sims, J. Lawrence.....3400 N. Meridian St. (8)
Sisk, Phillip B.....I. U. Medical Center (7)
Sluss, David H.....808 C. of C. Bldg. (4)
Smith, David L.....2901 N. Meridian St. (8)
Smith, E. Rogers.....822 Hume Mansur Bldg. (4)
Smith, Francis C.....1102 N. Irvington Ave. (19)
Smith, Roy Lee.....707 Underwriters Bldg. (4)
Smith, William B. ..2229 Northwestern Ave. (23)
Snider, Byron.....2717 S. East St. (3)
Solomon, Reuben A....414 Hume Mansur Bldg. (4)
Soper, Hunter A.....3524 N. Meridian St. (8)
Souter, Martha C.....3360 N. Meridian St. (8)
Sovine, Joe W.....922 Hume Mansur Bldg. (4)
Spahr, John F., Jr.....3440 N. Meridian St. (8)
Spalding, Joseph J.....706 Hume Mansur Bldg. (4)
Spangler, John S.....Methodist Hospital (7)
Sparks, Alan L.....1024 Hume Mansur Bldg. (4)
Spears, John M.....5562 Madison Ave. (27)
Speckman, Glenn H.....2120 E. 10th St. (1)
Spivey, Russell J. .....3400 N. Meridian St. (8)
Spolyar, Louis W...Indiana State Board of Health,
1330 W. Michigan St. (7)
Sputh, Carl B., Jr.....301 Doctors' Bldg. (4)
Stach, Thomas W.....I. U. Medical Center (7)
Stadler, Harold E.....41 N. Shortridge Rd. (19)
Stander, Richard W.....I. U. Medical Center (7)
Stanley, John S.....142 E. Ohio St. (4)
Stansbury, William E....3628 N. Sherman Dr. (18)
Staten, Jesse C.....Chevrolet Body Div., GMC,
340 White River Pkwy., W. Dr. S. (22)
Stayton, Chester A., Jr.
313 Hume Mansur Bldg. (4)
Steinmetz, Edward F.
Marion Co. General Hospital (7)
Stephens, Donald E.....6332 Guilford Ave. (20)
Stephens, Kuhrman H..501 Hume Mansur Bldg. (4)
Stevens, Sydney L.....303 Hume Mansur Bldg. (4)
Stoelting, Vergil K.....I. U. Medical Center (7)
Stone, Alvin T.....6202 College Ave. (20)
Storey, D. Edmund.....6225 Broadway (20)
Storey, Joseph L.....3454 N. Illinois St. (8)
Storms, Roy B. (S).....812 C. of C. Bldg. (4)
Strang, William C.....Larue D. Carter Hosp.,
1315 W. 10th St. (7)
Streeter, Ralph T.....3131 E. 38th St. (18)
Strickland, Neil R. .....6000 E. 46th St. (26)
Stroup, Tyler J.....216 K. of P. Bldg. (4)
Stucky, Elsworth K.....1349 Madison Ave. (25)
Stump, Loyd K.....3941 Meadows Dr. (5)
Stump, Thomas A.
Marion Co. General Hospital (7)
Suelzer, John G. .....1815 N. Capitol Ave. (2)
Suess, Robert E. .....41 N. Shortridge Rd. (19)
Sullivan, James J.....St. Vinvent's Hospital (7)
Summerlin, Jack D.....I. U. Medical Center (7)
Surratt, Mary Norris....6160 N. Meridian St. (20)
Sutton, William E.....521 Hume Mansur Bldg. (4)
Swan, John R.....915 Hume Mansur Bldg. (4)
Symmes, Alfred T.....625 E. 38th St. (8)
Szynal, John S.....633 E. 38th St. (5)

T

Takahashi, Masato.....I. U. Medical Center (7)
Talbott, Dan E.....1802 N. Illinois St. (2)
Tanner, Henry S.....321 Hume Mansur Bldg. (4)
Taube, Jack I.....214 Hume Mansur Bldg. (4)
Taylor, Clifford C.....Community Hospital (19)
Taylor, Cyril.....I. U. Medical Center (7)
Taylor, Frederic W....822 Hume Mansur Bldg. (4)
Teague, Frank W.....918 Hume Mansur Bldg. (4)
Teixler, Victor A.....224 Hume Mansur Bldg. (4)
Tepfer, Milton....Marion Co. General Hospital (7)
Test, Charles E.....1002 Hume Mansur Bldg. (4)
Teter, George V.....1221 E. 86th St. (40)

Tether, Joseph E.....510 Hume Mansur Bldg. (4)
Tharpe, Ray G.....3202 N. Meridian St. (8)
Thatcher, Hugh K., Jr.....4548 College Ave. (5)
Thoman, Rex L. .....Methodist Hospital (7)
Thomas, Charles R. .....405 E. Hanna Ave. (27)
Thomas, Edward P.....917 W. 30th St. (23)
Thomas, Fred A.....St. Vincent's Hospital (7)
Thomas, Lowell I.....1815 N. Capitol Ave. (2)
Thomas, Morris E.....1802 N. Illinois St. (2)
Thompson, John V.....7899 Ridge Rd. (20)
Thompson, Joseph F.....6138 N. Hillside Ave. (20)
Thompson, Paul D...423 Hume Mansur Bldg. (4)
Thompson, Wayne H. .....5470 E. 16th St. (18)
Thornton, Harold C.....301 E. 38th St. (5)
Throop, Frank B.....3400 N. Meridian St. (8)
Tindall, George T.....6002 Windsor Dr. (18)
Tinsley, Frank W.....3044 LaFayette Rd. (22)
Tinsley, Walter B., Jr.....3044 LaFayette Rd. (22)
Tinsley, Walter B.(S).....603 K. of P. Bldg. (4)
Tischer, E. Paul.....208 Hume Mansur Bldg. (4)
Tondra, John M.....408 Hume Mansur Bldg. (4)
Torrella, Jose A.....5324 W. 16th St. (24)
Tosick, William A.
Marion Co. General Hospital (7)
Toumey, Fred L.....1802 N. Illinois St. (2)
Trudgen, Spencer F.....Methodist Hospital (7)
Trusler, Harold M.....408 Hume Mansur Bldg. (4)
Tuchman, Joseph H.....2040 E. 46th St. (5)
Tucker, Warren S.....414 Hume Mansur Bldg. (4)
Tyler, Edward A.....I. U. Medical Center (7)
Tyner, Harlan H.....3202 N. Meridian St. (8)

U-V

Ullom, Ralph B.....3524 N. Meridian St. (8)
Van Denbark, Howard M...St. Vincent's Hosp. (7)
Vandivier, Robert M...209 Hume Mansur Bldg. (4)
Van Dorn, Myron J.....2165 Weslynn Dr. (8)
Van Fleet, Josephine.....Indiana State Board of Health, 1330 W. Michigan St. (7)
Van Meter, C. Powell.....3419 E. 10th St. (1)
Van Nuys, John D.....I. U. Medical Center (7)
Van Tassel, Charles J..709 Hume Mansur Bldg. (4)
Van Vactor, Helen D...226 Hume Mansur Bldg. (4)
Vellios, Frank.....I. U. Medical Center (7)
Vollrath, Victor J.....5202 N. Illinois St. (8)
Von Der Haar, Gerard....4016 E. Michigan St. (1)
Vore, Robert E....Marion Co. General Hospital (7)

W

Wagner, Anabel R.....I. U. Medical Center (7)
Wagner, Lindley H.....I. U. Medical Center (7)
Wainscott, Clinton S.
Marion Co. General Hospital (7)
Waldo, J. Thayer.....3989 Meadows Dr. (5)
Walther, Joseph E.....3202 N. Meridian St. (8)
Walton, William M.....1802 N. Illinois St. (2)
Ward, Wesley C.....3 E. 46th St. (5)
Warman, Alvah P. (S).....1363 E. 38th St. (5)
Warneke, Charles H.....St. Vincent's Hospital (7)
Warriner, James B.....1012 N. Emerson Ave. (19)
Warvel, John H., Jr...614 Hume Mansur Bldg. (4)
Warvel, John H.....614 Hume Mansur Bldg. (4)
Wasserman, Don H.....I. U. Medical Center (7)
Wehrman, Jule O. (S)
1408 N. Pennsylvania St. (2)
Weigand, Clayton G.....Eli Lilly & Co., 740 S. Alabama St. (6)
Weiss, Jason.....4914 W. 16th St. (24)
Weller, Charles A. (S)...3720 N. Delaware St. (5)
Wesemann, Merrill M...Marion Co. Gen. Hosp. (7)
West, Joseph L. .....6714 Rockville Rd. (41)
Westfall, B. Kemper.....2901 E. 38th St. (18)
Westfall, John B....1025 Hume Mansur Bldg. (4)
Wheeler, David E.....Community Hospital (19)
White, Donald J.....502 Bankers Trust Bldg. (4)
White, Douglas H.....3524 N. Meridian St. (8)
White, John B. Jr.....1815 N. Capitol Ave. (2)
White, Philip T.....I. U. Medical Center (7)
Wickstrom, Otto W.....3440 N. Meridian St. (8)
Widdifield, G. E.....2614 Madison Ave. (3)
Wilhelm, Guido P.....Methodist Hospital (7)
Wilkens, Irvin W.....1743 Shelby St. (3)
Williams, Charles D.....2422 Station St. (1)
Williams, Clifford L....Central State Hospital (22)
Williams, Harold W.....6000 E. 46th St. (26)
Williams, Howard S.....115 E. 16th St. (2)
Williams, Hugh L.....4829 E. 38th St. (18)
Williams, Paul D.....Central State Hospital (22)
Wilmore, Ralph C.
V. A. Hospital, 1481 W. 10th St. (7)
Wilson, David O.....Methodist Hospital (7)
Wilson, Fred M.....I. U. Medical Center (7)
Wilson, Oliver R.....3440 N. Meridian St. (8)
Wirey, Harold R.....6850 S. Madison Ave. (27)
Wise, William R.....2372 Lafayette Rd. (22)
Wishard, William N., Jr...1711 N. Capitol Ave. (7)
Witham, Robert L.....1502 N. Emerson (19)
Woerner, Thomas E...720 Hume Mansur Bldg. (4)
Wolf, Robert L...Marion Co. General Hospital (7)
Wolfram, Don J.....208 Hume Mansur Bldg. (4)
Wood, Donald E.....6325 Guilford Ave. (20)
Woodard, Abram S.....668 E. 38th St. (5)
Woolling, Kenneth R...718 Hume Mansur Bldg. (4)
Worley, Joseph P.....5839 E. Washington St. (19)
Worley, Richard H.....5317 E. 16th St. (18)
Wrege, Malcolm L.....1502 N. Emerson Ave. (19)
Wright, J. William, Jr..301 Hume Mansur Bldg. (4)
Wyttenbach, John E....503 Hume Mansur Bldg. (4)

Y

Yacko, Michael L.....1502 N. Emerson (19)
Yingling, Robert J. .....Community Hospital (19)
Young, James W.....6302 Guilford Ave. (20)
Young, John E.....4829 E. 38th St. (18)
Young, John M.....1456 E. 46th St. (5)
Young, John T.....1540 Columbia Ave. (2)

Z

Zell, Evertson H.....812 C. of C. Bldg. (4)
Zerfas, Phyllis K.....R. R. 1, Box 220 (27)
Zore, Joseph J.....3002 N. Tibbs Ave. (22)

DeMotte, C. Bowen ..540 N. Madison, Greenwood
Lewis, Robert J...4350 Franklin Rd., Lawrence (26)
Brose, Paul E.....R. R. 1, Lebanon
Reese, Jay S.....Sunnyside Dr., Martinsville
Peck, Franklin B., Sr.....R. R. 1, Monticello
McCallister, Larry L.
3303 S. Bittersweet Lane, Muncie
Asher, Ernest O. (S)
4730 W. 72nd St., New Augusta
Asher, James W...4730 W. 72nd St., New Augusta
Thrasher, John R. (S)
R. R. 1, Box 362, New Augusta
Berkshire, Shaffer B. .....Long St., North Vernon
Fosgate, Harold L.....R. R. 1, Russiaville
Paynter, Morris B.....59 Union St., Southport

Adams, Daniel S. (S)
2532 Columbus Dr., Ft. Myers, Fla.
Barrett, Robert V.....Army Hosp., Fort Ord, Calif.
Bohner, Caryle B.....Huasca, Hidalog, Mexico
Boling, Frederick F.....US PHS, St. Louis, Mo.
Brayton, John R., Jr.
Naval Hospital, Oakland, Calif.
Breneman, William L.
7915 Pine Brook Ave., San Antonio, Texas
Bugh, Charles W.
1075 Riverview Dr., Fairbanks, Alaska
Burman, Leonard
3701 Stocker St., Los Angeles 8, California

Call, William H.
University Hospital, Ann Arbor, Michigan
Childress, Robert C.
3916 W. University, Gainesville, Fla.
Close, Gerald A.
Nyadiri Methodist Mission,
P. B. 636, E. Salisbury, S. Rhodesia, Africa
Coade, George E.
U. S. Naval Disp., Long Beach, Calif.
Coddington, Robert C.
U. S. Army Hosp., Ft. Campbell, Ky.
Cullen, Paul K., Jr.
Mayo Clinic, Rochester, Minnesota
Dickey, William M.
V. A. Hospital, Bay Pines, Florida
Dirks, Kenneth R.....10th Med. Lab., Landstuhl
Army Med. Center, APO 180, N. Y., N. Y.
Dupler, Lee F...731 Summer Dr., San Antonio, Tex.
Fisher, Frank C...379 Linwood Ave., Buffalo, N. Y.
Fisher, Gerald.....Ippy, French Equatorial Africa
French, Richard N.
USAF Hosp., Lackland AFB, Texas
Gabe, William E.
61 Heather Lane, Orinda, California
Glover, John L.
Army Chemical Center, Edgewood, Md.
Hammond, James B.
461 E. Beacon St., Boston 15, Mass.
Harshman, James A.
U. S. Naval Hosp., Great Lakes, Ill.
Hurt, LaVerne B.
3102 Palm Ave., Delray Beach, Fla.
Jones, Roland W.
2d Marine Div., FMF, Camp Lejeune, N. C.
Kammen, Robert
2136 Barclay Rd., Oklahoma City, Okla.
Kenoyer, Wilbur L.
36 TAC Hosp., APO 132, N. Y., N. Y.
Kilgore, Byron W.
3322 Westwood Dr., Topeka, Kan.
Klingerman, John J.....131 Pinecrest #8,
Sunset Ridge, San Antonio, Texas
Kurlander, Gerald K. 28 Manor Dr., Red Bank, N. J.
Kurtz, Richard..2901 S. Parkway, Chicago, Illinois
Lansford, Kenneth G.
U. S. Army Hosp. (3185-01), Ft. Rucker, Ala.
Little, John W. (S)..447 Power Lane, Decatur, Ill.
McCallum, Robert M.
1704 Morninglo, Columbia, S. C.
Mann, Richard E.....Parris Island, N. C.
Mertz, Henry O., Sr. (S)
R. R. 2, Box 1619, Nokomis, Florida
Moore, Elwin J.
622 W. Dryden St., Glendale, Calif.
Moore, Richard B.
931 St. Paul Ave., #9, St. Paul, Minn.
Moore, William G.
U. S. Army Hosp., Ft. Hood, Texas
Morrow, Dean H.
Nat'l. Institutes of Health, Bethesda, Maryland
Murray James S.
980 Mission Terrace, Camarillo, Calif.
Musser, A. Wendell..U. S. Army, Ft. Bragg, N. C.
Nelson, Audrey H.
418 Medical Cnt. Dr., #303, Morgantown, W. Va.
Nelson, John W.
418 Medical Cnt. Dr., #303, Morgantown, W. Va.
Ormiston, Michael W.
V. A. Hosp., 5901 E. 7th St., Long Beach, Calif.
Parks, Herbert E.
9407 Winsome Lane, Houston 42, Texas
Pearson, Lyman R.
1881 Ridgeway Dr., Clearwater, Fla.
Rea, Ralph L.
3408 Toledo Terrace #4, Hyattsville, Md.
Reibel, Donald B.
Hosp. for Special Surgery, New York 21, N. Y.
Rhodes, Theodore D.
R. R. #2, Box 1595, Nokomis, Fla.
Ricketts, Joseph W. (S)
136 Magnolia Drive, Orman Beach, Florida
Rigg, John F.
1279 N. E. 97th Street, Miami Shores, Florida
Robinson, Frank C. (S)
200 Via Mentone, Newport Beach, Calif.
Rogers, Thomas P.
6142 LaPintura Dr., La Jolla, Calif.
Rudolph, Stephen J., Jr.
832nd TAC Hosp., Cannon AFB,
New Mexico
Scheeringa, Ronald H. US PHS, Fort Worth, Texas
Shoptaugh, A. Glenn Jr.
30750th USAF, Sheppard AFB
Wichita Falls, Texas
Smith, Edward B.
Armed Forces Inst. of Pathology, Washington, D.C.
Steury, Ernest M.
Kenya Colony, British East Africa
Szumilas, Peter P.
F. E. Warren AFB, Cheyenne, Wyo.
Talarico, Leonard H.
219 Orlando Rd., Rochester 22, N. Y.
Taylor, Max T.
Martin Army Hospital, Fort Benning, Ga.
Thurston, Harrison S. (S)
1204 Earlham Drive, Dayton 6, Ohio
Tinney, William E. (S)
P. O. Box 6983, Pass-A-Grille, Florida
Willitts, Bruce K.
U. S. Naval Dispensary, Norfolk, Va.
Ziperman, H. Haskell
97th Gen. Hospital, APO 757, New York, N. Y.

MARSHALL COUNTY

Hampton, James N.....Argos
Kelly, Frank (S).....Argos
Connell, Vactor O.....Bourbon
Marshall, George L. (S).....Bourbon

Bremen

Bowen, Otis R.....424 W. South St.
Burket, Cecil R.....424 W. South St.
Cripe, Earl P.....119 N. Center St.
Schreiner, John E.....201 E. Plymouth
Stine, Marshall E.....424 W. South St.

Culver

Baker, Milan D.....Culver Military Academy
Hippensteel, Russell R.....121 College Ave.
Howard, Joseph D.....112½ N. Main St.
Norris, Ernest B.....2805 E. Shore Dr.
Reed, Donald W. .....Culver

Plymouth

Connell, Paul S.....320 N. Center St.
Coursey, James O.....109 N. Walnut St.
France, Lloyd C.....1223 N. Center St.
Guild, John K.....1167 Pennsylvania
Kubley, James D.....304 N. Walnut St.
Peterson, Ronald L.....121 E. Garro St.
Reed Robert G. Jr.....109 N. Walnut St.
Reno, Edward C.....700 Ferndale St.
Rimel, James F.....1223 N. Center St.
Robertson, James S.....304 N. Walnut St.
Vore, Louring W.....121 E. Garro St.

Thompson, Alfred A. (S).....Tyner

MARTIN COUNTY

(See Daviess-Martin)

MIAMI COUNTY

Shrock, Ethan E.....Amboy
Malott, Fred R.....Converse
Sennett, William K.....Macy
Rendel, Harold E.....Mexico

Peru

Barnett, Ralph E.....65 N. Miami St.
Boone, Max L.....65 N. Miami St.
Carlson, Edward A. (S).....11½ W. Main St.
Ferrara, Donald W.....18 W. Fifth St.
Ferrara, Samuel J.....18 W. Fifth St.
Guthrie, James U.....331 W. Third St.
Herd, Cloyn R.....105 E. Fifth St.
Hill, Lloyd L.....65 N. Miami St.
Malouf, Stephen D. (S).....53 S. Broadway
Snyder, Parker W.....65 N. Miami St.

Tan, Constancio C.
Mary Immaculate Hosp., Newport News, Va.

MONROE COUNTY

(See Owen-Monroe)

MONTGOMERY COUNTY

Crawfordsville

Alexander, Stephen J.....306 Ben-Hur Bldg.
Baird, Malcolm K.....411 Ben Hur Bldg.
Burks, Jess E.....411 Ben Hur Bldg.
Cooksey, Thomas L. (S).....205 Marshall St.
Cornell, Robert A.....206 Ben Hur Bldg.
Daugherty, Fred N.....120 W. Pike St.
Dodds, Wemple.....Culver Hospital
Eggers, Richard.....120 W. Pike St.
Haller, Thomas C.....411 Tinsley Ave.
Humphreys, John W.....312 Jones Ave.
Kirtley, James M.....416 Ben Hur Bldg.
Lingeman, Byron N.....419 Ben Hur Bldg.
Millis, Samuel C.....416 Ben Hur Bldg.
Peacock, Norman F.....219 Ben Hur Bldg.
Pierson, Robert H.....305 E. Main St.
Shannon, Wesley E.....901 Cottage Ave.
Viray, Victoriano G.....411 Tinsley Ave.
Wallace, Hawthorne C.....R. R. Donnelley Co.

Otten, Ralph E.....Darlington
Priebe, Fred H.....Gen. Hosp., Indianapolis
Blix, Fred M.....Ladoga
Davis, William H.....New Market
Kindell, Hurschell D.....New Richmond
Richards, Edgar E.....Russellville
Thompson, Claude N.....Waynetown
Parker, Carl B.....Wingate

MORGAN COUNTY

Martinsville

Brubeck, Robert E.....215 E. Washington St.
Eisenberg, David A.....310 N. Main St.
Gray, Leon.....171 E. Washington St.
Miller, Ray D.....290 E. Washington St.
Ostheimer, George.....215 E. Washington St.
Pitkin, McKendree C.....440 Washington St.
Van Wienen, John.....60 W. Morgan
Willan, Horace R. (S).....109 S. Jefferson St.
Winter, William P.....1390 E. Columbus

Murphy, Maurice G. (S).....Morgantown

Mooresville

Bivin, James H.....31 S. Indiana
Comer, Kenneth E.....130 Indiana
Kendrick, William M.....130 Indiana
Van Bokkelen, Robert W.....320 N. Indiana

Miller, Robert J.....Paragon

NEWTON COUNTY

(See Jasper-Newton)

NOBLE COUNTY

Bowman, Charles M.....Albion
Nash, Justin R.....Albion
Mattmiller, Everette D.....Avilla
Sneary, Max E.....Avilla

Kendallville

Bryan, Robert E.....705 N. State St.
Gutstein, Richard R. (S).....120 Diamond
Hepner, Herman.....705 N. State St.
Lawson, Isaac H. (S).....125½ S. Main St.
Messer, Frank W.....115 E. Rush St.
Slough, O. Thomas.....112 W. Mitchell
Stallman, Carl F.....409 E. Wayne St.

Ligonier

Hooker, Donald J.....406 S. Main St.
Stone, Robert C.....401 S. Main St.
Stultz, Quentin F.....401 S. Cavin St.

Fipp, August L.....Rome City
Pulskamp, Bertrand H.....Wolcottville

OHIO COUNTY

(See Dearborn-Ohio)

ORANGE COUNTY

Keseric, N. E.....French Lick Springs
Sugarman, Benjamin E.....French Lick Springs
Hodgin, Philip T.....Orleans
Schoolfield, William E.....Orleans
Clark, Ivan A.....Paoli
Manship, Stanley S.....Paoli
McCalla, Charles X.....Paoli
Spears, John K.....Paoli

OWEN-MONROE COUNTIES

Bloomington

Baxter, Neal E.....306 E. Fifth St.
Bidney, Evelyn B.....321 S. Jordan Ave.
Borland, Raymond M.....114 N. Lincoln St.
Buckingham, Richard E.....344 College Ave.
Byrne, Louis.....110 S. Washington St.
Cochran, John F.....Indiana University
Creek, Jean A.....312 N. Walnut St.

Emery, Charles B., Jr.....611 N. College Ave.
Estes, Ambrose C.....121 E. Kirkwood Ave.
Farr, James C.....119 N. Grant St.
Fowler, Richard R. .....P. O. Box 1214
Geiger, Dillon D.....300 E. Kirkwood
Hardtke, Eldred F. .....509 E. Fourth St.
Hepner, Herman S.....312 N. Walnut St.
Hibner, Kermit Q.....117 N. Grant St.
Holland, Deward J. (S).....313 N. College Ave.
Holland, Philip T.....108 W. 7th St.
Holtzman, Paul W.....615 N. College
Hrisomalos, Frank N.....306 E. Fifth St.
Link, William C.....110 E. Fourth St.
Lundblad, Wilfred M.....1805 E. Tenth St.
Lyons, Robert E.....321 E. Kirkwood
Manifold, Harold M.....501 N. Washington St.
Marchant, Clarence H.....350 S. College Ave.
McIntire, Clarence B.....Bloomington Hospital
Middleton, Thomas O.....P. O. Box 457
Milan, Joseph F.....106 N. Grant St.
Miller, John M.....Indiana University
Owen, Margaret T.....200 S. Washington St.
Pizzo, Anthony.....Bloomington Hospital
Poolitsan, George C.....407 N. Walnut St.
Quarles, E. Bryan.....Indiana University
Ramsey, Hugh S.....307 E. Kirkwood
Reed, William C.....307 E. Kirkwood
Rieger, I. Taylor.....102 N. Grant St.
Rogers, Otto F., Jr.....210 N. Washington St.
Rollins, Thomas K.....114 E. Seventh St.
Ross, Ben R.....314 E. Seventh St.
Ross, James B.....314 E. Seventh St.
Schell, Harry D.....422 E. Fifth St.
Schuman, Edith B.....Indiana University
Sibbitt, Joseph W.....300 E. Kirkwood
Smith, Herschel S..... 110 S. Lincoln
Smith, Rodney D. (S).....115 N. Washington St.
Spencer, Beaufort A.....114 N. Lincoln
Stangle, William J.....640 S. Rogers
Taraba, Ralph W.....Indiana University
Topolgus, James N.....403 N. Walnut St.
Tyler, Stanley H.....Indiana University
Way, James A.....322 East Kirkwood
Wenzler, Paul J.....110 S. Washington St.
Wilson, Talmage L. .....P. O. Box 1216

Stouder, Charles E.....Ellettsville
Mitchell, George L. (S).....Smithville

Spencer

Brown, Marcel S. .....53 W. Market St.
Haynes, Arthur A. .....792 E. Morgan St.
Kay, Oran E. .....Main and Morgan Sts.
Smith, Frederick R. .....452 Lover's Lane

PARKE-VERMILLION COUNTIES

Greene, Frederick G. (S).....Bloomingdale
Goodrum, William R.....Cayuga

Clinton

Evans, Frederick J.....242 S. Third St.
Gerrish, Wakefield D. (S).....125 S. Fifth St.
Herzberg, Milton.....222 Elm St.
Kercheval, John M.....819 S. Third St.
White, Isaac D. (S).....427 S. Fourth St.

Lauer, Dorothy B.....Dana
Webb, Lawrence C.....Dana
Britton, Welbon D.....Montezuma
De Renne, William L.....Newport
Minich, William G.....FMC Corp., Newport

Rockville

Bloomer, Richard S.....115 N. Market St.
Dowell, Emil H.....Parke Hotel Bldg.
Harstad, Casper.....216 W. High St.
Kempf, Gerald F.....Indiana State Sanitarium
Noblitt, James S. (S).....Rockville
Pirkle, Hubert B.....Indiana State Sanitarium
Zierer, Reuben O.....Indiana State Sanitarium

Fell, Robert M.....Rosedale
White, Chester S. (S).....Rosedale
Staff, Robert A.....1239 S. Center St., Terre Haute

PERRY COUNTY

Bush, Hargis R.....Cannelton

Tell City

Dukes, David A.....521 Main St.
Gilbert, Robert G.....Perry Co. Mem. Hosp.
Glenn, Fred C. (S).....436 Main St.
Herr, John W.....622 Main St.
James, John M.....746 Ninth St.
James, Nicholas A. (S).....746 Ninth St.
Kemker, Bernard P.....746 Ninth St.
Lohoff, Lewis C.....507 Main St.
Neifert, Noel L.....507 Main St.
Ress, Gene E.....1047 Twelfth St.
Smith, Fred, Jr.....507 Main St.

Snyder, Earl R. (S).....Troy

PIKE COUNTY

Petersburg

Hall, Donald L.....7th & Poplar Sts.
Omstead, Milton.....110 S. Sixth St.

DeTar, George B. (S).....Winslow

Higgins, James L.
32nd USAF Hosp., Minot AFB, N. Dakota

PORTER COUNTY

Chesterton

Griffin, Joseph P.....Jackson Blvd.
Hall, Thomas C.....621 Broadway
Harless, Clarence M.....123 Indiana Ave.
Read, John E.....114 S. 11th St.
Robertson, William C.....600 E. Morgan

Kleinman, Francis J. (S).....Hebron

Valparaiso

Brown, James C.....1005 Campbell St.
Covey, Thomas J.....1 Sheffield Dr.
Davis, Carl M.....202 Indiana Ave.
DeGrazia, Eugene J.....810 LaPorte Ave.
Dittmer, Jack E.....23 Lincolnway
Dittmer, Thomas L.....23 Lincolnway
Eades, Ralph C.....6 Napoleon St.
Frank, John R. (S).....23 Lincolnway
Gold, Marvin E.....1005 Campbell St.
Green, Leonard J.....1005 Campbell St.
Griffin, Charles G.....813 La Porte Ave.

Klos, Stanley J.....522 W. Lincolnway
Koenig, Robert L.....810 La Porte Ave.
Lee, Robert Y.....808 Lincolnway
Makovsky, Theodore.....1005 Campbell St.
O'Neill, Martin.....810 LaPorte Ave.
Sacks, Leonard Z.....Porter Memorial Hosp.
Scheimann, Lois.....702 Lincolnway
Schmidt, Richard H.....Porter Memorial Hospital
Stoltz, Robert M.....501 Lincolnway
Tetrick, Lain.....Box 429
Vietzke, Paul C. F.....1005 Campbell St.

Gordon, Joseph L.....Wheeler

POSEY COUNTY

Montgomery, Samuel B. (S).....Cynthiana
Woods, Arba L. (S)..2921 Graham Ave., Evansville
Ropp, Harold E.....New Harmony
Boren, Paul R.....Poseyville
Boyle, Carroll L.....Poseyville

Mount Vernon

Challman, Wililam B.....431 Walnut St.
Crist, John R.....105 E. Sixth St.
Hirsch, Herman L.....126 W. Fifth St.
Oliphant, Frank W.....701 Mulberry St.
Vogel, L. John.....131 W. Third St.

PULASKI COUNTY

Lacy, John D., Jr.....Medaryville
Eshelman, Henry R.....Monterey

Winamac

Carneal, Thomas E. (S).....111 N. Monticello
Halleck, Harold J.....119 W. Main St.
Hollenberg, Edward L.....210 S. Market St.
Karns, John D.....105 N. Franklin
Thompson, William R.....111 N. Monticello

PUTNAM COUNTY

Veach, Lester W.....Bainbridge
Veach, Richard L.....Bainbridge
Gray, Clyde C. (S).....Cloverdale
Ellett, John Jr.....Coatesville

Greencastle

Dester, Herbert E.....Box 76
Dettloff, Frederick R.....Alamo Bldg.
Fuson, Wenfred J.....108 Northwood Blvd.
Johnson, James B.....105 E. Washington St.
Jones, Lawrence R.....250 Hillsdale Ave.
Nichols, Anne Sackett.....707 E. Seminary St.
Schauwecker, Cleon M.....239 Hillsdale Ave.
Smith, A. Wilson.....DePauw University
Steele, Dick J.....Alamo Bldg.
Stephens, James P.....Alamo Bldg.
Tennis, George T.....Alamo Bldg.
Tipton, William R.....110 S. Vine St.
Wiseman, V. Earle.....239 Hillsdale Ave.

RANDOLPH COUNTY

Nixon, Byron .....Farmland
White, Harvey E.....Farmland
Harmon, Wayne.....Lynn
Jordan, Leo E.....Lynn
Martin, Charles E. (S).....Lynn
Shallenberger, Henry R.....Modoc
Potter, Richard M.....Ridgeville

Union City

Birum, Patricia J.....334 W. Oak St.
Chambers, Carol R.....Chambers Medical Clinic
Chambers, Leroy B.....Chambers Medical Clinic
Landon, David J.....R.R. #2
McClure, Morris E.....334 W. Oak St.
Phipps, Leland K.....227 W. Oak St.
Reid, Robert W. (S).....726 W. Division St.
Wagoner, B. D.....Columbia and Lennox St.

Winchester

Dininger, William S.....102 E. South St.
Engle, Russell B.....210 S. Main St.
Koch, Howard W.....208 E. Washington St.
Painter, Lowell W.....124 E. Franklin St.
Slick, Crystal R.....457 Elm St.
Sparks, Paul W.....214 S. Main St.

Ruby, Fred McK. (S)
8128 Brookside Pl., Wauwatosa, Wis.

RIPLEY COUNTY

Hisrich, Lloyd W...222 Maplewood Ave., Batesville
Warn, William J.....Milan
Lippoldt, Charles L.....Oldenburg
Row, George S.....Osgood
Smith, R. Lee.....Osgood
McConnell, William C.....Sunman
Hopkins, Lester H.....Versailles
Parker, John B.....Versailles

RUSH COUNTY

McNabb, George B.....Carthage
McNabb, Richard C.....Carthage
Smith, Stephen D.....Knightstown
Sheets, Charles E.....Manilla
Worth, C. Willard.....Milroy

Rushville

Atkins, Clarence C.....225 N. Morgan St.
Corpe, Kenneth F.....R. R. No. 4
Dean, Donald I.....4th & Main
Denny, Melvin H.....R. R. #4
Ellis, Davis W.....229 N. Morgan St.
Green, Frank H.....134 E. Second St.
Lee, John M. (S).....914 N. Morgan St.
McKee, Harry G.....335 N. Main St.
Norris, Marvin G.....134 E. Second St.
Nutter, Wyndham H.....1003 N. Morgan

ST. JOSEPH COUNTY

Zeitler, Philip S.....1400 Hudson St., Elkhart
Hartsough, Ralph I.....Lakeville
How, John T. (S).....Lakeville

Mishawaka

Barone, Carmelo V.....307 W. Fourth St.
Christophel, Verna A.....109 W. Third St.
Farner, James E.....114 Lincolnway E.
Ganser, Richard A.....111 S. Race St.
Goethals, Charles J.....602 Lincolnway W.
Mahank, Camiel C.....223 S. Spring St.
Martin, Charles F.....322 S. Mill St.
Reed, Robert F.....1316 Lincolnway E.
Rosenwasser, Jacob.....225 Lincolnway E.
Sirlin, Edward M.....109 S. Church St.

Spalding, Wendell L.....427 Lincolnway E.
Templeton, Ames R.....522 Calhoun St.
Van Rie, Leo P. (S).....116 S. West St.
Walerko, Frank.....124 S. Race St.
Walters, Charles E.....319 S. Spring St.
Whitlock, Francis C.....110 N. Race St.
Whitlock, Merle E.....123 W. Fourth St.
Wurster, Herbert C.....221 E. Third St.
Zimmer, Henry J.....119½ Lincolnway W.

Luzadder, John E. .....New Carlisle
Calvin, Helen M. ....P. O. Box 38, North Liberty
Calvin, O. Walter ....P. O. Box 38, North Liberty
Hardy, John J. (S) .....North Liberty
Warrick, Homer L.....Osceola
Helman, Harry W. (S).....Rolling Prairie

South Bend

A

Acker, Robert B. (S)....418 Sherland Bldg. (1)
Arisman, Ralph K.....607 Odd Fellows Bldg. (1)

B

Backs, Alton J.....1401 Lincolnway W. (28)
Baran, Charles.....404 Sherland Bldg. (1)
Bartsch, Harvey L.
919 E. Jefferson Blvd., #102 (17)
Beach, Norman F.
919 E. Jefferson Blvd., #107 (17)
Bechtold, Samuel E.
919 E. Jefferson Blvd., #302 (17)
Bell, Horace D.....420 N. Hill St. (17)
Bell, Robert L. .....531 N. Main St. (1)
Bennett, Jene R.....531 N. Main St. (1)
Berke, Robert D.....1118 Lincolnway E. (18)
Biasini, Benedict A.....403 Dixie Way North (17)
Bickel, David A.....515 Odd Fellows Bldg. (1)
Birmingham, Peter J. (S)..426 Sherland Bldg. (1)
Bixler, Louis C.
919 E. Jefferson Blvd., #207 (17)
Blackburn, Erwin.....402 Sherland Bldg. (1)
Bodnar, Leslie M.....525 N. Michigan (1)
Bogan, William C. .....316 N. Ironwood (15)
Booth, Franklin M.....430 Sherland Bldg. (1)
Borough, Lester D.....710 J. M. S. Bldg. (1)
Brechtl, Harvey J.
919 E. Jefferson Blvd., #104 (17)
Buchanan, Wallace D.
919 E. Jefferson Blvd., #107 (17)
Buechner, Frederick W.....116 N. Main St. (1)
Buslee, Roger M.....531 N. Main Street (1)
Bussard, Clifford F. (S)
202 Whitcomb-Keller Bldg. (1)
Bussard, Frank W.
202 Whitcomb-Keller Bldg. (1)
Butts, Milton A.....118 N. Walnut St. (28)

C

Carter, F. R. Nicholas....605 Sherland Bldg. (1)
Cassady, James V.....921 Lincolnway E. (18)
Cassady, John R.....921 Lincolnway E. (18)
Chamblee, Roland W.....336 N. Notre Dame (17)
Clark, William H.....520 Sherland Bldg. (1)
Colip, George D.....514 Sherland Bldg. (1)
Colosey, Frederick J...3121 Mishawaka Ave. (15)
Cook, Gordon C.....719 N. Main St. (1)
Cooper, Harry L. (S)....410 Sherland Bldg. (1)
Culbertson, Carl S.....531 N. Main St. (1)
Custer, Edward W.....Healthwin Hospital (17)

D

Davis, Edward A.....3014 Ardmore Trail
Denham, Robert H.
919 E. Jefferson Blvd., #204 (17)
Devoe, Kenneth.....418 N. Michigan St. (1)
Dietl, Ernest L.....820 Sherland Bldg. (1)
Dingley, Albert F.
919 E. Jefferson Blvd., #204 (17)
Dodd, Robert D.....2311 Miami St. (14)
Dolezal, Bernard J.....115 S. Eddy St. (17)
Donnelly, Everett F.....602 N. Michigan St. (1)
Dunlap, D. Logan.....203 J. M. S. Bldg. (1)

E

Eades, R. Charles.....527 Colfax (17)
Ebin, Judah L.....816 Odd Fellows Bldg. (1)
Edwards, Bernard E.....704 N. Main St. (1)
Egan, Sherman L.....203 J. M. S. Bldg. (1)
Engel, Howard R.
919 E. Jefferson Blvd., #403 (17)
English, John P.....122 N. Lafayette Blvd. (1)
Ericksen, Lester G.
919 E. Jefferson Blvd., #207 (17)
Erickson, Gustaf W...122 N. Lafayette Blvd. (1)

F

Feferman, Martin E.
919 E. Jefferson Blvd., #305 (17)
Feldman, Max.....1921 Miami St. (14)
Filipek, Walter J.....311 Odd Fellows Bldg. (1)
Firestein, Ben Z.
919 E. Jefferson Blvd., #307 (17)
Firestein, Ray.....416 Sherland Bldg. (1)
Fish, Edson C.....326 Sherland Bldg. (1)
Fisher, Lawrence F. (S).....1717 E. Colfax (17)
Foley, Hansel O.....919 E. Jefferson Blvd., #408
Forrest, O. Norman, Jr.....719 N. Main St. (1)
Frank, Herbert..919 E. Jefferson Blvd., #202 (17)
Frank, Lyall L., Jr.....224 W. Navarre (1)
Frank, Lyall L.....224 W. Navarre (1)
Frash, DeVon W.....1910 Miami (14)
Frey, William B.....316 N. Ironwood Dr. (15)
Friedman, Morris S.
919 E. Jefferson Blvd., #402 (17)
Frith, Louis G.....521 W. Washington Ave. (1)

G

Gaffney, Raymond.....535 W. Colfax Ave. (1)
Gates, George E.....122 N. Lafayette Blvd. (1)
Gilman, Marcus M.....401 Odd Fellows Bldg. (1)
Godersky, George E.
919 E. Jefferson Blvd., #106 (17)
Graf, John P.....326 Sherland Bldg. (1)
Green, G. Richard.....822 Sherland Bldg. (1)
Green, George F. .....825 Sherland Bldg. (1)
Green, Norval E.....704 N. Main St. (1)
Grillo, Donald.....226 Sherland Bldg. (1)
Grorud, Alton C.....122 Lafayette Blvd. (1)
Grove, James H.
919 E. Jefferson Blvd., #107 (17)

H

Haley, Paul E.....816 Sherland Bldg. (1)
Hall, James M.....914 E. Jefferson Blvd. (17)
Hamilton, Charles O.....602 N. Michigan (1)
Hanley, Harriet F.
919 E. Jefferson Blvd., #101 (17)
Haugseth, Ellsworth K...122 Lafayette Blvd. (1)
Hawkins, Glen E.....602 N. Michigan (1)
Helmer, John F.....826 Sherland Bldg. (1)
Hilbert, John W.....410 W. Washington Ave. (1)
Hildebrand, John O., Jr...1307 E. Ewing Ave. (14)
Hill, Theodore A.....107 N. Eddy (17)
Hill, Wallace C.
919 E. Jefferson Blvd., #306 (17)
Hillman, Marion W.....206 E. Bartlett St. (1)
Hillman, William H. (S)
1317 Marquette Blvd. (16)
Holdeman, Lillian S. ..404 N. Lafayette Blvd. (1)

Holdeman, Richard W..404 N. Lafayette Blvd. (1)
Holtzman, Norman N.....3123 S. Michigan (14)
Houser, D. Stanley.....2314 Miami (14)
How, Louis E.....513 W. Indiana Ave. (14)
Hyde, Carroll C.....122 N. Lafayette Blvd. (1)

J-K

Jankowski, Ernest B.....411 S. Sheridan Ave. (19)
Johns, Nicholas C.....116 E. Jefferson Blvd. (1)
Kamm, Bernard A.....526 Sherland Bldg. (1)
Karn, John W.....326 Sherland Bldg. (1)
Knapp, Arthur L. (S) .2215 Mishawaka Ave. (15)
Knode, Kenneth T.....729 Sherland Bldg. (1)
Krueger, John E.....326 Sherland Bldg. (1)
Kuhn, Frederick L.....1215 S. Michigan (18)

L

Lamb, J. Leonard
919 E. Jefferson Blvd., #401 (17)
Lane, William H.....418 N. Main St. (1)
Lang, Joseph E.....318 Sherland Bldg. (1)
Lester, Vern L.
919 E. Jefferson Blvd., #107 (17)
Levatin, Bernard I.
919 E. Jefferson Blvd., #303 (17)
Levkoff, Abner H.
919 E. Jefferson Blvd., #101 (17)
Lionberger, John R.
919 E. Jefferson Blvd., #207 (17)
Liss, Emanuel C.....119 S. Eddy (17)
Lockhart, Philip B.
919 E. Jefferson Blvd., #107 (17)

M

MacLeod, John K.....120 N. Lafayette Blvd. (1)
Marquis, Gordon.....120 N. Lafayette Blvd. (1)
Martinov, William E.
919 E. Jefferson Blvd., #301 (17)
Mason, Bernard A.....122 N. Lafayette Blvd. (1)
Mauzy, Merritt C.....919 E. Jefferson Blvd. (17)
McCraley, William J.....218 S. Francis (17)
McDonald, Ralph M.....502 J. M. S. Bldg. (1)
McFarland, Corley B...122 N. Lafayette Blvd. (1)
McMeel, James.....1138 Whitehall Dr.
Metcalfe, Grant E.
919 E. Jefferson Blvd., #308 (17)
Miller, Milo K. (S).....122 N. Lafayette Blvd. (1)
Mott, Cassell A...1301½ W. Washington St. (16)
Mueller, Hilbert M...122 N. Lafayette Blvd. (1)
Murphy, Eugene C.....122 N. Lafayette Blvd. (1)
Murphy, Josephine F.....111 W. Bartlett St. (1)
Myers, Philip R.....1002 Lincoln Way W.

N-O

Neher, John L.....17615 State Rd. 23
Nelson, F. Dale.....704 N. Main St. (1)
Nelson, Raymond E.....206 E. Bartlett St. (1)
Olson, Donald T.
919 E. Jefferson Blvd., #309 (17)
Olson, Kenneth L.
919 E. Jefferson Blvd., #207 (17)
Oren, William F.
919 E. Jefferson Blvd., #301 (17)
Orr, W. Robert .....525 N. Michigan St. (1)

P

Parsons, Robert L.....919 E. Jefferson Blvd. (17)
Pascuzzi, Chris A.....531 N. Main St. (1)
Pauszek, Thomas B....704 W. Washington St. (6)
Petrass, Andrew (S).....516 Sherland Bldg. (1)
Phelps, Stephen R.....818 Sherland Bldg. (1)
Plain, George.....122 N. Lafayette Blvd. (1)
Proudfit, Charles H.
919 E. Jefferson Blvd., #304 (17)
Pyle, Harold D.....119 S. Eddy St. (17)

R

Rasmussen, Ruth F...122 N. Lafayette Blvd. (1)
Rigley, Edward L.....408 Sherland Bldg. (1)
Roberts, Billy J.....3123 Mishawaka Ave. (15)
Rodin, Herman H.....822 Oakridge (17)
Rosenheimer, George M...418 N. Michigan St. (1)
Rubens, Eli.....2314 Miami (14)
Rudolph, Carl J.....110 W. Bartlett St. (1)

S

Sanderson, Robert B.....730 Sherland Bldg. (1)
Sandock, Louis F.....428 Sherland Bldg. (1)
Sandoz, Harry H.....612 Odd Fellows Bldg. (1)
Schaphorst, Richard A.....1124 Whitehall Dr. (15)
Schiller, Herbert A.
919 E. Jefferson Blvd., #205 (17)
Scott, Frank M.....122 N. Lafayette Blvd. (1)
Selby, Keith E.....407 Lincolnway W. (1)
Sellers, Francis M.....3209 Mishawaka Ave. (15)
Sensenich, Roscoe L. (H).....128 S. Scott St. (25)
Sharp, Merle C.....717 N. Main St. (1)
Shelley, Edward S.....207 S. Taylor (25)
Shriner, Richard L.
919 E. Jefferson Blvd., #308 (17)
Sisson, Norvel D.....531 N. Main St. (1)
Skillern, Penn G. (S).....1014 E. Fox St. (14)
Skillern, Scott D.....422 Sherland Bldg. (1)
Slominski, Harry H. (S)
708 Odd Fellows Bldg. (1)
Spenner, Raymond W.....726 Sherland Bldg. (1)
Staunton, Henry A.....3016 Mishawaka Ave. (15)
Stiver, Daniel D.....822 Sherland Bldg. (1)
Stogdill, William J.....525 Sherland Bldg. (1)

T

Thompson, John M.....921 Lincolnway E. (18)
Thompson, Robert A.
913 S. Twyckenham Dr. (15)
Thornton, Maurice J.
919 E. Jefferson Blvd., #107 (17)
Tirman, Wallace S.
919 E. Jefferson Blvd., #207 (17)
Traver, Perry C. (S).....1010 Riverside Dr. (16)

U-V-W-X-Y-Z

Urruti, Arnoldo H.....420 J. M. S. Bldg. (1)
Vagner, S. Bernard
1303½ W. Washington Ave. (16)
Van Fleit, William E.
919 E. Jefferson Blvd., #407 (17)
Vurpillat Francis J...132 N. Lafayette Blvd. (1)
Wack, James E.....530 W. Indiana Ave. (14)
Walker, Edwin M., Jr.....326 Sherland Bldg. (1)
Ward, James W.....325 Wakewa (17)
Weiss, Eugene.....919 E. Jefferson Blvd. (17)
White, Donald G.....1815 Ireland Road (14)
Wilhelm, Agatha M...1032 E. Wayne at Eddy (17)
Wilson, James M.....919 E. Jefferson Blvd. (17)
Wixted, John F.....919 E. Jefferson Blvd. (17)
Wixted, Julia L.....919 E. Jefferson Blvd. (17)
Zeiger, Irvin L.....3123 Mishawaka Ave. (15)

Cline, Kenneth L.....Wyatt

Bassler, Carl R. (S).....R. #4, Niles, Michigan
Ellison, Alfred...7304 Encelia Dr., La Jolla, Calif.
Fish, Clyde M. (S) ..R. R. 2, Edwardsburg, Mich.
Fujawa, Matthew J.....1499 Lincoln Ave.,
Lakewood 7, Ohio
Liss, Emanuel C.
112-20 72nd Dr., Forest Hills, New York
Smith, Lee Jr. .....Brethren Service Project
Castaner, Puerto Rico
Stratigos, Joseph S.....736 Judson, Evanston, Ill.

SCOTT COUNTY

Bogardus, Carl R.....61 Main St., Austin
McClain, Marvin L.....935 First St., Scottsburg
Sabens, James A.....69 Wardell St., Scottsburg

SHELBY COUNTY

Nigh, Rufus M.....Fairland
Davis, John A.....Flat Rock

Shelbyville

Arata, Lucian A.....327 W. Broadway
Dalton, Wilson L.....117 W. Washington St.
Inlow, Herbert H.....103 W. Washington St.
Inlow, William D. (S).....103 W. Washington St.
Miller, Richard C.....17 Mechanic St.
Moheban, Joseph.....120 W. Jackson St.
Paz, Luis.....103 W. Washington St.
Richard, Norman F.....103 W. Washington St.
Scott, V. Brown.....103 W. Washington St.
Silbert, David B.....17 S. Tompkins
Spindler, Robert D.....165 W. Mechanic St.
Tindall, Paul R. (S).....20 N. Pike St.
Tindall, William R.....505 S. Harrison St.
Tower, James H., Jr.....120 W. Jackson St.
Whitcomb, Roger F.....120 W. Jackson St.

LaLonde, Alban H..1312 Bedford Rd., Washington

SPENCER COUNTY

Gailey, Ivan L.....Clinton
Medcalf, Norman L. (S).....Lamar
Jolly, Wesley P. (S).....Richland
Atchison, Kenneth C. (S)..217 Main St., Rockport
Glackman, John C., Jr.
6th and Main Sts., Rockport
Monar, Michael .....6th and Main Sts., Rockport

STARKE COUNTY

Leinbach, Earl R.....Hamlet

Knox

DeNaut, James F.....4 N. Heaton St.
Henry, Howard J.....107 S. Main St.
Ingwell, Guy B.....201 S. Heaton St.
McClure, Clark.....107 S. Main St.

North Judson

Llamas, Dominador F.....520 Lane St.

STEUBEN COUNTY

Angola

Artz, Richard W.....416 E. Maumee
Barton, Robert .....416 E. Maumee
Cameron, Don F.....416 E. Maumee
Cameron, Mary H.....416 E. Maumee
Crum, Marion M.....301 E. Maumee
Davis, Claude E.....909 W. Maumee
Hartman, John J.....209 W. Felicity
Kissinger, Knight L.....Elmhurst Hospital
Mason, Donald G.....416 E. Maumee
Rausch, Norman W.....416 E. Maumee

Mittleman, Edwin J.....Box 14, Ashley
Blosser, Blaine A. (S).....Fremont
McCormack, Lloyd L.....Fremont
Schrepferman, Wayne .....Hamilton

SULLIVAN COUNTY

Brown, John S.....Carlisle
Whipps, Charles E. (S).....Carlisle
Dukes, Betty .....Dugger
Dukes, Frederic M. (S).....Dugger
Dukes, Joe E.....Dugger
Bethea, Robert O.....Farmersburg

Sullivan

Bedwell, Marion H.....16 N. Court St.
Crowder, James H.....112 N. Section St.
Eskew, Kenneth W.....117 W. Washington St.
Higbee, Paul (S).....4 E. Washington St.
Maple, James B. (S).....117 W. Washington St.
McClure, Glen.....348 S. Main St.
Scott, Irvin H.....117 W. Washington St.

Taylor, John R.....105 N. Main, Palestine, Ill.
Daugherty, William L.....Hutsonville, Ill.

SWITZERLAND COUNTY

(See Jefferson-Switzerland)

TIPPECANOE COUNTY

Netherton, Clyde R. (S).....Chalmers
Derhammer, George L.....Brookston
Gish, Howard M.....Brookston
Henderson, Robert N.....Brookston
Dublin, Madeline P.....Francesville
Kresler, Leon E.....101 N. 4th St., Kentland

Lafayette

Ade, Charles H.....2211 South St.
Ade, Mary Keller.....2211 South St.
Baker, John R.....405 Lafayette Life Bldg.
Balkema, Catherine M.....3 N. 21st St.
Bayley, William E.....Home Hospital
Bolin, Robert C.....2600 Greenbush St.
Buhrmester, Harry C., Jr.....2600 Greenbush St.
Burkle, John C. (S).....520 Wall St., #7
Burns, John T.....2502 South St.
Bush, Jack A. .....405 Lafayette Life Bldg.
Calvert, Raymond R.....314 N. Sixth St.
Canganelli, Vincent G.....2433 South Ninth St.
Carpenter, James B.....15 N. 25th St.
Cole, Ira.....2315 South St.
Coyner, Alfred B. (S)....509 Lafayette Life Bldg.
Davis, Grayson B. .....637 Ferry St.
Davis, Howard B.....2600 Greenbush St.
Deur, Julius J.....1011 Columbia
Donahue, George R.....718 Lafayette Life Bldg.
Dubois, Ramon B.....23 N. 25th St.
Eaton, Marion J.....214 Lafayette Life Bldg.
Elliott, Paul W.....35 N. 25th St.
Engeler, James E.....2600 Greenbush St.
Ferguson, William B.....2211 South St.
Fields, Donald C.....2600 Greenbush St.
Flack, Russell A.....1005 Lafayette Life Bldg.
Frasch, Mahlon G.....300 Lafayette Life Bldg.
Frey, Harley B.....405 Lafayette Life Bldg.
Gery, Richard E.....2600 Greenbush St.
Gripe, Richard P.....2600 Greenbush St.
Haas, Charles F.....2211 South St.
Hanneman, Robert E.....2600 Greenbush St.
Harden, Murray E.....903 Lafayette Life Bldg.
Harter, Eli B.....2600 Greenbush St.
Harvey, Bennett B.....35 N. 25th St.
Herrold, George W.....20 N. 24th St.
Hogle, Frank D.....Wabash Valley Hospital
Holladay, Lloyd J. .....411 Lafayette Life Bldg.
Horswell, Richard R.....2600 Greenbush St.
Hughes, Richard R.....31 N. 25th St.

Hull, James E.....2600 Greenbush St.
Hunsberger, Walter G.....St. Elizabeth Hospital
Hunter, Frank P. (S)....617 Lafayette Life Bldg.
Johnson, Herbert S.....2600 Greenbush St.
Johnson, Lowell R.....2315 South St.
Jones, David.....24 N. 24th St.
Karberg, Richard J.....2420 Ferry St.
Klatch, Ben Z.....2211 South St.
Klepinger, Harry E.....824 Lafayette Life Bldg.
Kohne, Robert W.....3010 Underwood
Landis, Charles B.....2211 South St.
Levering, Guy P. (S).....2113 S. Eighth St.
Loop, Frederick A.....914 Lafayette Bldg
McAdams, Hugh B.....2011 Kossuth St.
McAdams, Robert.....2011 Kossuth St.
McClelland, Donald C. (S)....1021 Highland Ave.
McFadden, James M.....35 N. 25th St.
McKinley, Joseph.....312 Lafayette Life Bldg.
McKinney, Daniel H.....301 Lafayette Life Bldg.
Marsh, George W.....1216 Howell
Martin, Joe M.....Wabash Valley Hospital
Marvel, Howard R.....2600 Greenbush St.
Mather, Charles R.....2600 Greenbush St.
Mather, Robert L.....609 Lafayette Life Bldg.
Miller, Albert J.....35 N. 25th St.
Miller, Roland E.....2200 Scott St.
Mount, William M.....20 N. 24th St.
Neumann, Kenneth O.....618 Lafayette Life Bldg.
Onorato, Joseph J.....2433 S. Ninth St.
Pearlman, Samuel S. (S).....107 N. Sixth St.
Peyton, Frank W.....15 N. 25th St.
Ratcliff, Frank W.....405 Lafayette Life Bldg.
Rothrock, Philip W.....2200 Scott St.
Ruschli, Edward B. (S)..510 Lafayette Life Bldg.
Shively, John L.....2211 South St.
Sholty, William M.....405 Lafayette Life Bldg.
Smith, Lowell C.....637 Ferry St.
Stahl, Edward T.....2600 Greenbush St.
Stansell, Gilbert B.....St. Elizabeth Hosp.
Steele, Hugh H.....2600 Greenbush St.
Strayer, Joseph W.....612 Lafayette Life Bldg.
Stuntz, Edgar C.....Wabash Valley Hospital
Trout, Carl J.....314 N. Sixth St.
Tubbs, George R. (S).....2502 Iroquois Trail
Underwood, George M.
Jefferson Sq. Shopping Center
Van Buskirk, Edmund L.....2600 Greenbush St.
Van Den Bosch, Wallace R.....2216 South St.
Vermilya, Robert W.....405 Lafayette Life Bldg.
Weaver, Richard J.....St. Elizabeth Hosp.
Webster, Paul L.....2600 Greenbush St.
Weller, Wendell A.....2600 Greenbush St.
Williams, Robert E.....15 N. 25th St.
Williams, Russell S.....2600 Greenbush St.

Lind, Jaap J.....Mulberry
Wong, Norman F.....Linden
Babb, Forrest J.....Stockwell

West Lafayette

Ash, Harold H.....712 Bexley Rd.
Bahler, Dean R.....Purdue University
Carroll, Bertha Rose.....Purdue University
Crockett, Franklin S. (H).....424 Littleton St.
Hass, Caroline E.....402 Northwestern Ave.
Hass, Thomas W.....402 Northwestern Ave.
MacLeod, Donald F.....Purdue University
Meikle, Louise J. (S).....606 Terry Lane
Peterson, Joel A.....1208 N. Grant St.
Rommel, Clarence H.....456 Northwestern
Schmiedicke, Paul H.....Purdue University
Spurlock, Fae H.....Purdue University
Van Kirk, John R.....724 Northwestern Ave.
Wilms, John H.....Purdue University

TIPTON COUNTY

Haller, Robert L.....Kempton
Stouder, Albert E.....Kempton
Tranter, William F.....Sharpsville

Tipton

Burkhardt, Boyd A.....202 S. West St.
Carter, Jean V.....130 N. Main St.
Compton, George L.....219 N. Independence
Gossard, Meredith B.....308 N. Independence
Kincaid, Raymond K.....202 S. West St.
Kurtz, William A.....202 S. West St.

Ericson, Harold L.....Windfall
Moser, Elmer B. (S).....Windfall

UNION COUNTY

(See Wayne-Union)

VANDERBURGH COUNTY

Evansville

A

Acre, Robert R.....706 Walnut St. (8)
Adler, Raymond N.....714 Second Ave. (10)
Adye, Wallace M.....1307 N. Stringtown Rd. (11)
Alexander, John E.....609 Hulman Bldg. (8)
Anderson, Milton H...Evansville State Hosp. (2)
Antes, Earl H.....420 Cherry St. (13)
Arendell, Robert E.....1400 Cass Ave. (14)
Austin, Eugene W.....3700 Belle Meade(15)

B

Baker, Herman M. (S).....715 First Ave. (10)
Baker, Mason R.....1008 S. Evans Ave. (13)
Barclay, Irvin C.....114 S. E. Second St. (8)
Barnhart, Willard T.....701 Chestnut St. (13)
Baylor, Edward M. (S)....501 E. Cherry St. (13)
Bebout, Donald E.
Mead Johnson & Co., 2404 Penn. (21)
Beck, Robert E.....600 Mary St. (10)
Begley, Joseph W. Jr..314 S. E. Riverside Dr. (13)
Beisel, Larry H.....420 Cherry St.
Bender, Martin J.....912 Hulman Bldg. (8)
Bennett, Abner P.....412 S. E. Fourth St. (13)
Benson, Wilbur M.
Mead Johnson & Co., 2404 N. Penn. (21)
Bissonnette, Roger P.....420 Cherry St. (13)
Boone, Robert D.....420 Cherry St. (13)
Boswell, Robert W. C.....2351 Division St. (14)
Boyd, Stella N.....502 Hulman Bldg. (8)
Brakel, Frank J.....420 Cherry St.
Britt, Robert.....420 Cherry St. (13)
Brockmole, Arnold W.....201 S. E. Third St. (13)
Brown, George W.
Mead Johnson & Co., 2404 Penn. (21)
Bryan, Stanton L.....607 Hulman Bldg. (8)
Buehner, Donald F.....3700 Bellemeade (15)
Burger, Thomas C.....3700 Bellemeade (15)
Burnikel, Ray H.....527 Sycamore St. (8)
Burress, Clyde R.....723 Mary St. (10)

C

Cacia, John J.....609 Hulman Bldg. (8)
Carlson, Ralph F.....517 Sycamore St. (8)
Cheydleur, Eleanor P.
314 S. E. Riverside Dr. (13)
Clark, Thomas W.....420 Cherry St. (13)
Clouse, Paul A.....613 S. Weinbach Ave. (14)

Cockrum, William M.....908 Hulman Bldg. (8)
Coleman, Joseph E.....3700 Bellemeade (15)
Combs, Herman T.....807 W. Indiana (10)
Combs, John H.....412 S. E. Fourth St. (13)
Combs, Pearl B. (S).....4109 Lincoln (15)
Cooper, Waller W.....Deaconess Hospital (10)
Corcoran, Patrick J. V.....3700 Bellemeade (15)
Crawford, James H.....221 Chestnut St. (13)
Crevello, Albert J.....3700 Bellemeade (15)
Crimm, Paul D.....Boehne Hospital (12)
Crudden, Charles H...Clearview Sanitarium (10)
Cuff, Steve C.....420 Cherry St. (13)
Cullnane, Chris W.....2312 W. Franklin St. (12)
Cymbala, Bohdan.....St. Mary's Hospital (10)

D

Daves, W. Lawrence.....715 First Ave. (10)
Davidson, Harold H.....420 Cherry St. (13)
Davis, Max D.
Mead Johnson & Co., 2404 N. Penn. (21)
Deems, Myers B.....314 S. E. Riverside Dr. (13)
Denzer, Edward K.....108 S. E. Second St. (8)
Denzer, William O.....108 S. E. Second St. (8)
Dieckman, Herbert S.....3700 Bellemeade (15)
Diefendorf, Charles F. (S)
2100 W. Virginia St. (12)
Dodd, Roberts K.....2605 Lincoln Ave. (14)
Downer, Luther H.....521 Oak Street (13)
Drake, Dale W.....St. Mary's Hospital (10)
Durkee, Melvin S.....3700 Bellemeade (15)
Durkin, John W., Jr.....Mead Johnson & Co.,
2404 Pennsylvania St. (21)
Dutchman, William R.....501 N. Senate Ave.
Dycus, Walter A.....319 N. St. Joseph Ave. (12)
Dyer, Wallace K.....3700 Bellemeade (15)

E

Eisterhold, John A....5300 New Harmony Rd. (12)
Engel, Edgar L.....126 S. E. Seventh St. (8)
Ewer, Robert W.....420 Cherry St. (13)

F

Faith, Ira L.....805 Old Nat'l. Bank Bldg. (8)
Faul, Henry J.....815 Hulman Bldg. (8)
Faw, Melvin L.....420 Cherry St. (13)
Fenneman, Robert J...402 S. E. Seventh St. (8)
Fickas, Dallas.....715 First Ave. (10)
Fisher, William C.....715 First Ave. (10)

G

Garland, Edgar A.....606 S. Weinbach (14)
Garst, Garland R.....3700 Bellemeade (15)
Gaul, L. Edward.....509 Hulman Bldg. (8)
Geller, Samuel.....R. R. 8, Box 143A
Getty, William H.....420 Cherry St. (13)
Giorgio, Douglas J.....916 S. Burkhardt Rd. (15)
Gourieux, E. De Verre.....3700 Bellemeade (15)
Griep, Arthur H.....5414 Madison Ave. (15)
Grimm, William C. H.....420 Cherry St. (13)
Guckien, Joseph L.....609 Hulman Bldg. (8)

H

Hammond, R. Case.....701 Chestnut St. (13)
Hare, Daniel M.....529 S. Lincoln Pk. Dr. (14)
Harlan, William L.....3700 Bellemeade Ave. (15)
Harned, Ben K.....420 Cherry St. (13)
Harris, Robert L.....4 Woodmere Lane (15)
Hart, L. Paul.....3700 Bellemeade Ave. (15)
Hartley, Clarence A., Jr.....221 Chestnut St. (13)
Hartz, F. Minton.....123 S.E. Second St. (8)
Hassel, Walter B.....1905 E. Division St.
Heard, Albert.....322 E. Cherry St. (13)
Heinrich, Weston A...314 S. E. Riverside Dr.(13)
Hendershot, Eugene L...412 S. E. Fourth St. (13)
Hermayer, Stephen....220 S. E. Seventh St. (13)
Herrmann, Gordon T.....3700 Bellemeade (15)
Herzer, Clarence C.....322 N. Fulton (10)
Himebaugh, Gilbert J.....3700 Bellemeade (15)
Hobbs, Arthur A.....600 Mary St. (10)
Hobgood, James L.....3700 Washington Ave. (15)
Hoopes, Jane M.....3700 Bellemeade (15)
Hoover, J. Guy.....517 Sycamore St. (8)
Hotalen, William B.....Mead Johnson & Co.,
2404 Pennsylvania St. (21)
Hovda, Richard B.....St. Mary's Hospital (15)
Huggins, Victor S.....715 First St. (10)
Hyatt, Gilbert T.....1106 W. Franklin St. (10)

J

Johnson, Harold V.....2114 W. Franklin St. (12)
Johnson, Stephen L.....521 Sycamore St. (8)

K

Kauffman, Harley M.....219 Walnut St. (8)
Kelly, John B.....420 Cherry St. (13)
Kessler, Robert B.....1338 Division St. (14)
Kiechle, Frederich L.....726 S. E. First St. (13)
Kincaid, Robert S.....1000 N. Spring St. (11)
Kleindorfer, Roscoe L...819 W. Franklin St. (10)

L

Laubscher, Clarence....6621 Kratzville Rd. (10)
Lawrence, Joseph C.....715 N. First Ave. (10)
Leibundguth, Henry.....3700 Bellemeade (15)
Leich, Charles F.....124 S. E. First St. (8)
Lewis, Earl T.....Mead Johnson & Co.,
2404 Pennsylvania St. (21)
Lynch, Harold D.....Mead Johnson & Co.,
2404 Pennsylvania St. (21)

M

McCool, Joseph H. .....1 Woodmere Lane (15)
McDonald, Joseph D.....517 Sycamore St. (8)
McKeon, Edward C.....Mead Johnson & Co.,
2404 Pennsylvania St. (21)
McPherson, Thomas C.....Mead Johnson & Co.,
2404 Pennsylvania St. (21)
MacKenzie, Pierce.....126 S. E. Seventh St. (8)
Manner, Richard J.....Mead Johnson & Co.,
2404 Pennsylvania St. (21)
Marvel, James A.....420 Cherry St. (13)
Mason, Everett E.....118 S. E. First St. (8)
Mathews, James R.....715 First Ave. (10)
Maxson, Roy V.....401 Mary St. (10)
Miller, Laverne B.....714 N. Main St. (11)
Miller, Milton J.....15 W. Franklin St. (10)
Mills, Fred E.....Deaconess Hospital (10)
Mino, Robert A.....723 Mary St. (10)
Moehlenkamp, Charles E.
614 N. Governor St. (11)
Moulton, Lillian G.....1 North Barker (12)
Muelchi, Adeline F.....518 Hulman Bldg. (8)
Murphy, Edward U.....901 Hulman Bldg. (8)

N

Nenneker, Henry (S)....1912 Harmonyway (12)
Newnum, Raymond L.....3700 Bellemeade (15)
Newsome, C. K.....415 E. Mulberry (13)
Nicholson, Raymond W.....3700 Bellemeade (15)
Niedermayer, Alfred J..960 Washington Ave. (13)
Nonte, Leo R.....715 First Ave. (10)

O

Oswald, Robert H.....126 S. E. Seventh St. (8)

P

Pastor, Julius W.....3700 Washington Ave. (15)
Pavlick, Theodore J.....908 Hulman Bldg. (8)
Pemberton, Jack J...319 N. St. Joseph Ave. (12)
Pollard, Walter S. (S)..115 S. E. Second St. (8)
Porro, Francis W.....3700 Washington Ave. (15)
Present, Julian.....3700 Bellemeade (15)
Price, Shirley G.....420 Cherry St. (13)
Pugh, Willis L.....715 First Ave. (10)

R

Ratcliffe, Albert W.....510 S. E. First St. (13)
Reich, Clarence E.....1209 N. Fulton (10)
Rietman, H. Jerome
Evansville State Hospital (2)
Ritchie, William D.....555 Herndon Dr. (11)
Rittlemeyer, Louis F., Jr.....Mead Johnson & Co.,
2404 Pennsylvania St. (21)
Ritz, Albert S.....3700 Bellemeade (15)
Robinson, Earle U.....615 Bellemeade (13)
Rosenblatt, Bernard B.....709 Hulman Bldg. (8)
Royster, George M. (S)
401 Citizens Nat'l. Bank Bldg. (8)
Royster, Robert A.
401 Citizens Nat'l. Bank Bldg. (8)
Rudolph, Kenneth J.....2701 E. Walnut St. (14)
Rupper, Warren R.....600 Mary Street (10)
Rusche, Henry J.....313 W. Iowa (10)
Russell, Richard H.....3700 Washington Ave. (15)

S

Schimmelpfennig, Robert W.
1013 Parrett St. (13)
Schirmer, Robert H.....1118 W. Franklin St. (12)
Schneider, Charles P...2211 W. Franklin St. (12)
Schriefer, Victor V.....1120 N. Main St. (11)
Sinn, Charles M.....715 First Ave. (10)
Slaughter, Howard C.....908 Hulman Bldg. (8)
Slaughter, John C., Jr.....3700 Bellemeade (15)
Slaughter, Owen L.....3700 Bellemeade (15)
Smith, Gordon L.....19 Chandler Ave. (13)
Smith, Roy M.....1307 Stringtown Rd. (11)
Snively, William D., Jr.....Mead Johnson & Co.,
2404 Pennsylvania St. (21)
Sprecher, Herman C.....527 Sycamore St. (8)
Springstun, Walter R.....715 First Ave. (10)
Stallings, Hugh A. .....3700 Bellemeade (15)
Steele, Paul W.....1218B Lincoln Ave. (14)
Sterne, John H.....3700 Bellemeade (15)
Stewart, L. Ray.....St. Mary's Hospital (15)
Stork, Urban F. D.....420 Cherry St. (13)
Strueh, Paul E.....220 S. E. Seventh St. (13)

T

Tager, Stephen N.....3700 Bellemeade (15)
Thompson, Naiad Mason....420 Cherry St. (13)
Tilden, Margaret H.....700 Mary St. (10)
Tisserand, John B., Jr.....3700 Bellemeade (15)
Tuholski, James M.....Mead Johnson & Co.,
2404 Pennsylvania St. (21)
Tweedall, Daniel C.....715 First Ave. (10)

U-V

Viehe, Robert W. (S).....618 S. Willow Rd. (14)
Visher, John W. (S)
805 Old National Bank Bldg. (8)
VonderHaar, Thomas E.....715 First Ave. (10)

W

Walker, William F.....420 Cherry St. (13)
Walter, Paul A. F., III.....Mead Johnson & Co.,
2404 Pennsylvania St. (21)
Walter, Robert F.....1514 S. Kentucky Ave. (14)
Warner, Charles L.....420 Cherry St. (13)
Waters, George W...Evansville State Hospital (2)
Weber, Edgar H.....123 S. E. Second St. (8)
Weiss, Henry G.....614 Hulman Bldg. (8)
Welborn, Mell B.....420 Cherry St. (13)
Wilhelmus, C. Kenneth..115 S. E. Seventh St. (8)
Wilhelmus, Gilbert M.....1028 Washington (15)
Willis, Charles F.....1100 S. Bedford Ave. (13)
Willison, George W.....3700 Bellemeade (15)
Wilson, David.....517 Mary St. (10)
Wilson, John D.....3700 Bellemeade (15)
Wilson, Ralph.....517 Mary St. (10)
Woods, William P. (S)....5050 Lincoln Ave. (15)
Wynn, Justice F.....905 Hulman Bldg. (8)

X-Y-Z

Young, C. Curtis.....126 S. E. Seventh St. (8)
Zeier, Francis G.....420 Cherry St. (13)
Zimmerman, Harold.....6 S. E. Second St. (8)
Ziss, Robert C.....216 S. E. Riverside (13)
Zwickel, Ralph E.....906 Hulman Bldg. (8)

Buchholz, Ransom R.
V. A. Hospital, McKinney, Texas
Ehrich, William S. (S).....Manning, So. Carolina
Hawk, Edgar A...621 S. Park St., Madison 5, Wis.
Jernigan, William R.....756 Loeb, Memphis, Tenn.
Lyman, Frank L.
1 Sherman Ave., White Plains, N. Y.
McClary, Charles W.
122 Nieto St., Long Beach, Calif.
Marchand, John H.....R. R. #1, Henderson, Ky.
Mayberry, Alton R.
1204 Cypress Road, Chapel Hill, N. C.
Newman, Alvin E.
2937 Coral Shores Dr., Ft. Lauderdale, Fla.
Steckler, Robert J.
9871 Aldgate, Garden Grove, Calif.

VERMILLION COUNTY

(See Parke-Vermillion)

VIGO COUNTY

Loving, Jury B.....New Goshen
McIntosh, Wilbert .....Riley
Jett, Clyde W.....Seelyville

Terre Haute

A

Allen, Orris T. (S).....422 Rose Dispensary Bldg.
Anderson, Walter C.....2235 Wabash Ave.
Ault, Roy J.....3050 Poplar St.

B

Bannon, William G.....416 Rose Dispensary Bldg.
Benages, Anthony G.....221 S. Sixth St.
Blum, Leon L.....210 Rose Dispensary Bldg.
Bopp, Henry W., Jr.....221 S. Sixth St.
Bopp, James.....236 S. 21st St.
Boyd, H. Clark.....221 S. Sixth St.
Bradley, Stephen C. (S).....916 S. 25th St.
Bristol, Henry M. S.....1218½ Wabash Ave.
Bronson, Paul J.....3050 Poplar St.
Brown, Robert R.....221 S. Sixth St.

C

CaJacob, Melville E.....1000 S. Sixth St.
Caldwell, Milton V.....721 Wabash Ave.
Cavins, Alexander W.....221 S. Sixth St.

Combs, Stuart R.....3050 Poplar St.
Congleton, George C. (S)
308 Merchants National Bank Bldg.
Conforti, Victor P.....221 S. Sixth St.
Conklin, James O.....500 Rose Dispensary Bldg.
Connerley, Marion L.....211 Fairbanks Bldg.
Conway, Thomas J.....221 S. Sixth St.
Crockett, Wayne A.....416 Rose Dispensary Bldg.

D

Denny, E. Rankin.....3050 Poplar St.
Dierdorf, Fred W.....Union Hospital
Drummy, William W.....221 S. Sixth St.
Dyer, George W.....2235 Wabash Ave.

E

Edwards, Henry G. .....6 Rose Dispensary Bldg.

F

Freed, John E., Jr.....1030 S. Sixth St.
Freed, John E. (S).....1030 S. Sixth St.

G

Gerrish, Donald A.....5206 Clinton Road
Gillotte, Joseph P.....210 Rose Dispensary Bldg.
Goodman, Hubert T...410 Rose Dispensary Bldg.
Gossom, Donn R.....203 Rose Dispensary Bldg.
Grindrod, John M.....Ind. State Teachers College

H

Harkness, Robert G.....301 Rose Dispensary Bldg.
Haslem, Ezra R.....401 Rose Dispensary Bldg.
Haslem, John R.....221 S. Sixth St.
Hogan, Thomas W.....627 Cherry St.
Hoover, Dewey A.....1218½ Wabash Ave.
Humphrey, Paul E.....1235 Ohio Blvd.
Hunt, Edgar J.....R. R. 1

J

Johnson, Paul D.....822 N. Fifteenth St.
Justin, Renate G.....901 S. 25th St.

K

Kabel, Robert N.....3050 Poplar St.
Krieble, William W.....221 S. Sixth St.
Kunkler, Arnold W.....1700 N. Seventh St.
Kunkler, Joseph (S).....14 S. Fifth St.
Kunkler, William C.
212 Merchants Nat'l Bank Bldg.

L

LaBier, Clarence R. (S).....325 S. Ohio St.
Lancet, Robert O.....2101 Wabash Ave.
Lee, James.....St. Anthony Hospital
Loewenstein, Werner L.....1537 S. Seventh St.
Luckett, Coen L.....211 Fairbanks Bldg.
Lyons, L. Mason.....59 S. 18th St.

M

McAleese, George B.....1030 S. Sixth St.
McBride, Noel S...407 Merchants Nat'l Bank Bldg.
McCrea, Fred R.....221 S. Sixth St.
McEwen, James W.....670 Cherry St.
McLaughlin, Gordon C.....3227 Wabash Ave.
Mahoney, Charles L.....221 S. Sixth St.
Malone, Leander A.....721 Wabash Ave.
Mankin, William J.....402 Tribune Bldg.
Mason, Lester M....312 Merchant Nat'l Bank Bldg.
Mattox, Don M.....1700 N. Seventh St.
Meissel, Robert .....920 N. 19th St.
Meyn, Werner P.....221 S. Sixth St.
Miklozek, John E.....1461 S. Seventh St.
Milleson, Ann L. M.....826 S. Center St.
Musselman, Glen G.....1021 S. Sixth St.

N-O

Nay, Ernest O.....221 S. Sixth St.
Neudorff, Louis G.....221 S. Sixth St.
Oliphant, Wilmer G.....1021 S. Sixth St.

P

Pearce, Roy V.....1440 S. 25th St.
Pu, Pin H.....1021 S. Sixth St.

R

Rabushka, Sanford .....627 Cherry St.
Reed, Robert C.....1606 N. Seventh St.
Reynolds, Richard J.....2250 Wabash Ave.
Richart, James V.....414 Rose Dispensary Bldg.
Riggs, Floyd C.....2216 Wabash Ave.
Rogers, R. Shirrell.....26 N. Sixth St.,
West Terre Haute
Rubin, Milton M.....221 S. 19th St.

S

Sayers, Frank E. (S).....436 Bluebird Dr.
Scherb, Burton E.....104 N. Seventh St.
Schott, Edward J. (S).....653 Oak St.
Schumaker, Robert A.....3050 Poplar St.
Scully, William E.....221 S. Sixth St.
Shanklin, Vernon A. (S).....672½ Wabash Ave.
Showalter, John R.....1233 Maple Ave.
Siebenmorgen, Louis (S).....1200 S. Eighth St.
Siebenmorgen, Paul .....1200 S. Eighth St.
Silverman, Norman M.....1634 S. Seventh St.
Speas, Robert C.....402 Tribune Bldg.
Stewart, Walter E. (S).....721 Wabash Ave.
Stoelting, J. Lewis.....1724 N. Seventh St.
Strecker, William L.....2006 Wabash Ave.
Strong, Daniel S. (S).....2618 Lafayette Ave.
Sullivan, John M.....1712 Franklin St.

T-U-V

Thom, Julia S.....912 Chestnut St.
Topping, Malachi C.....3050 Poplar St.
Veach, William L.....1235 Ohio St.
Voges, Edward C.....702 College Ave.

W

Walden, Heinz J.....1616 N. Ninth St.
Weber, Joseph G. S.....723 Wabash Ave.
Weinbaum, Jack G.....206 Rose Dispensary Bldg.
Wheeler, Byron C.....3050 Poplar St.
White, James V.....721 Wabash Ave.
Wilson, Fred L.....1501 S. Third St.

X-Y-Z

Zwerner, Paul F.....12 Points State Bank Bldg.

WABASH COUNTY

Walker, James L. (S).....Lafontaine

North Manchester

Balsbaugh, George K.....107 W. Seventh St.
Bunker, Ladoska Z.....North Manchester
Cook, Charles E.....114 W. Main St.
Eiler, Paul A.....1104 N. Wayne St.
Seward, George W.....111 E. Main St.
Smith, Lloyd H.....1104 N. Wayne St.
Venable, George L.....106 W. Main St.

Wabash

Boaz, William D. .....645 N. Spring St.
Dannacher, William D.....284 N. Wabash
Dragoo, John R.....261 E. Hill
Dunham, Henry H.....Wabash Co. Hospital
Elward, Carl J.....1280 Columbus
Hanneken, Vincent J.....86 N. Comstock
LaSalle, Richard M.....645 N. Spring St.
LaSalle, Robert M., Jr.....645 N. Spring St.
LaSalle, Robert M., Sr. .....645 N. Spring St.
Mills, John F.....24 E. Main St.
Pearson, William E.....290 N. Wabash
Rauh, Robert A.....884 N. Miami St.
Steffen, Julius T.....443 N. Wabash
Stoops, Jean T.....280 N. Wabash
Whisler, Frederick M. (S).....10 W. Hill

Black, Edgar K.....320 Watt St., Circleville, Ohio
Kidd, James G. (S)....Veterans Hosp., Wood, Wis.

WARREN COUNTY

(See Fountain-Warren)

WARRICK COUNTY

Boonville

Hoover, Peter B.....223 W. Locust St.
Stover, Wendell C.....125½ S. Second St.
Terry, Robert H.....117 S. Second St.
Wilson, Paul E. (S).....126 N. Third St.
Woodson, Dan E.....117 S. Second St.

Nelson, Dudley .....Chandler
Colvin, Robert C.....Newburgh
Radziewicz, Arthur R.....Newburgh
Wilhelmus, Charles M. (S).....Newburgh

Dimmett, Robert P.
149 Rosewood Dr., Metairie, La.

WASHINGTON COUNTY

Tower, Thomas K.....Campbellsburg
Carty, Charles B.....Pekin
Paynter, William
LaRue D. Carter Hosp., Indianapolis (7)

Salem

Apple, Eddie R.....501 W. Market St.
Coleman, Henry G..... Mitchell Bldg.
Episcopo, Arsenius R.....308 N. Main St.
Fultz, Roy L.....304 E. Market St.
Huckleberry, Irvin E.....502 W. Mulberry St.

WAYNE-UNION COUNTIES

Hill, Paul G.....Cambridge City
Kenyon, Charles E.....Cambridge City
Barton, Willoughby M.....Centerville
Hutchison, Donald R.....Fountain City

Liberty

Clarkson, Clarence G.....304 E. Union St.
Lewis, James F.....28 E. Union St.
McWilliams, William B.....207 N. Market St.

Richmond

Adney, Frank B.....1015 S. A St.
Ake, Loren.....410 First National Bank Bldg.
Allen, Robert T. .....34 S. Seventh St.
Ballenger, William E.....309 Medical Arts Bldg.
Blossom, Paul W.....825 S. A St.
Brooks, G. Tanner.....29 S. 12th St.
Brown, Richard J.....84 S. 14th St.
Buche, Frederick P. (S).....106 S. Seventh St.
Coble, Frank H.....51 S. Eighth St.
Cox, Leon T. .....1210 E. Main St.
Daggy, Benjamin T.....Medical Arts Bldg.
Daggy, James R.....35 S. Eighth St.
Dingle, Paul E.....216 Medical Arts Bldg.
Dreyer, Ralph W.....2 S. W. 17th St.
Ebbinghouse, Tom.....98 W. Main St.
Guthrie, James R.....1010 S. A St.
Hadley, Harvey (S).....627 S. 14th St.
Harmon, Carl J.....407 Medical Arts Bldg.
Hill, Gladys Marie.....407 Medical Arts Bldg.
Hill, Harold D.....412 Medical Arts Bldg.
Hunt, Gayle J.....Reid Memorial Hospital
Johnson, George M.....136 Medical Arts Bldg.
Kime, Charles E.....1201 S. A St.
Klepfer, Jefferson F.....Richmond State Hospital
Kreitl, Dorothy R.....Richmond State Hospital
Lee, Glen Ward.....139 Medical Arts Bldg.
Ling, John F.....505 First National Bank Bldg.
Logan, James Z.....84 S. 14th St.
Loomis, Charles H.....1203 S. A St.
McIlroy, Richard J...301 First National Bank Bldg.
Mader, John H.....2000 E. Main St.
Malcolm, Russell L.....127 Medical Arts Bldg.
Meredith, Elwood J.....203 Medical Arts Bldg.
Miller, Harold L.....603 S. 23rd St.
Millis, Arthur B.....505 First Nat'l. Bank Bldg.
Park, Byron J.....418 Medical Arts Bldg.
Passino, James.....Reid Memorial Hospital
Pentecost, Paul S.....1300 Chester Blvd.
Plasterer, Edward D.....212 S. 16th St.
Porter, George S.....808 S. A St.
Ramsdell, Glen A.....407 First Nat'l. Bank Bldg.
Ross, Harry P.....410 Second National Bank Bldg.
Ross, James S.....1308 N. A St.
Runge, Paul W.....1426 E. Main St.
Sage, Charles V.....48 S. 11th St.
Sherer, Kenneth E.....422 Medical Arts Bldg.
Shields, Tom S.....47 S. 11th St.
Smith, John R.....617 S. A St.
Snyder, Morris C.....130 Medical Arts Bldg.
Stamper, Lucian A.....402 Medical Arts Bldg.
Stepleton, John D.....Reid Memorial Hospital
Stillwell, William R.....2607 South C Place
Sweet, Howard E.....35 S. Eighth St.
Taylor, William R. (S)....308 Medical Arts Bldg.
Wanninger, Horace...408 Second Nat'l Bank Bldg.
Warrick, Francis B.....1426 E. Main St.
Weinstein, Edwin B.....204 Colonial Bldg.
Weitemier, Raymond A.....2000 E. Main St.
Wertenberger, Morris D...Reid Memorial Hospital
Wiland, Olin K.....Reid Memorial Hospital
Wynegar, David E.....Richmond State Hospital
Zeps, E. Frances.....701 S. 16th St.

Shepard, Fred F.....College Corner, Ohio

WELLS COUNTY

Bluffton

Boonstra, Charles E.....303 S. Main St.
Bradley, Louis F.....303 S. Main St.
Buckner, Joy F.....116 E. Walnut St.
Caylor, Charles H. .....303 S. Main St.
Caylor, Harold D.....303 S. Main St.

Caylor, Truman E.....303 S. Main St.
Collins, Jack T.....303 S. Main St.
Cook, Robert G.....303 S. Main St.
Dorrance, Thomas O.....303 S. Main St.
Eisaman, Jack L.....303 S. Main St.
Gitlin, Max M.....121 E. Market St.
Gitlin, William A.....121 E. Market St.
Hamilton, Orville G. (S).....227 S. Main St.
Huffman, Galen C.....303 S. Main St.
Jackson, Charles E.....303 S. Main St.
Kephart, S. Bruce.....303 S. Main St.
Lehman, Emery W.....904 S. Bennett St.
Matzen, Richard N.....303 S. Main St.
Mead, Clarence H. (S).....227 S. Main St.
Meier, Donald W.....303 S. Main St.
Milroy, Robert A. .....303 S. Main St.
Ouaidat, Mounib .....303 S. Main St.
Panos, Constantine G. .....227 S. Main St.
Phillips, John F.....303 S. Main St.
Pietz, David G.....303 S. Main St.
Sorg, David A.....303 S. Main St.
Stevens, Adam C.....303 S. Main St.
Strehler, Don A.....303 S. Main St.
Symon, William E.....303 S. Main St.
Talbert, Pierre C.....303 S. Main St.
Yoder, Richard P.....303 S. Main St.

Gingerick, Charles M.....Liberty Center
Hardin, Wayne E.....Ossian

Johnston, Robert L..P. O. Box 111, Melbourne, Fla.
Rudy, Donald B.
Travessa do Ferreiro No. 12-1d, Lisboa 3, Portugal

WHITE COUNTY

Galbreth, Jesse P. (S).....Burnettsville
Houser, Wayne W.....Monon
McClure, Stanley E.....Monon

Monticello

Beck, David C.....135 S. Illinois St.
Carney, John C.....116 N. Illinois St.
Dickerson, W. Martin.....1114 O'Connor Blvd.
Fullerton, Robert L.....201 Beach Dr.
Hibner, Nolan A.....110 S. Main St.
Morris, Warren V.....115 Court St.

Mayfield, Clifford H. (S).....Reynolds
Baynes, Frank L.....Wolcott
Forbes, Violet Crabbe.....Wolcott

WHITLEY COUNTY

Hershey, Ernest A. (S) .....Churubusco
Minick, Linus J.....Churubusco

Columbia City

Hamilton, Thomas.....Columbia City
Heritier, C. Jules.....116 S. Chauncey
Langohr, John L.....215 E. Van Buren St.
Lehmberg, Otto F. C.....118 E. Van Buren St.
Niccum, Warren L.....215 E. Van Buren St.
Nolt, Ernest V. (S) .....103 N. Line
Reid, Donald B.....118 E. Van Buren
Roth, James R.....R. R. #4
Thompson, Frank M.....112 N. Main St.
Vogel, John L.....215 E. Van Buren St.
Wait, Jerome H.....115 S. Main St.
Wilson, John.....122 N. Main St.

Stalter, Gaylord W.....North Webster
White, Charles G.....North Webster
Mishler, Joe B.....P. O. Box 276, Pierceton
Yoder, Dewey D.....R. R. #1, Pierceton

Huffman, Verlin P.....701 State St., South Whitley
Luckey, James E.....Wolf Lake
Jehanyar, M. Ali..403 E. Columbia, South Whitley

WOMAN'S AUXILIARY
to the
INDIANA STATE MEDICAL ASSOCIATION

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LEGISLATION	Mrs. Burton Kintner	3520 E. Jackson Blvd.	Elkhart
MEDICAL CARE INSURANCE	Mrs. Joseph M. Black	671 Braewick Rd.	Seymour
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MENTAL HEALTH	Mrs. Richard G. Horswell	1629 E. Jackson Blvd.	Elkhart
ORGANIZATION	Mrs. John M. Sullivan	2422 College Ave.	Terre Haute
PROGRAM	Mrs. Palmer Eicher	4401 Washington Blvd.	Indianapolis
PUBLICITY	Mrs. Donald J. White	5430 N. Delaware	Indianapolis
RURAL HEALTH	Mrs. Robert M. Seibel		Nashville
SAFETY	Mrs. E. Robert Jacobs	1629 Franklin St.	Columbus
LIASON OFFICER to the Indiana Chapter of W.A. S.A.M.A.	Mrs. Max S. Norris	540 E. 36th St.	Indianapolis
1963 CONVENTION CHAIRMAN House of Delegates	Mrs. John W. Deever	6901 S. East St.	Indianapolis

MEMBERSHIP ROSTER—BY COUNTIES

ADAMS COUNTY

Berne

Beaver, Mrs. Norman E.....866 Columbia Dr.
Boze, Mrs. Robert L.....255 Dearborn St.
Luginbill, Mrs. Howard.....817 W. Main St.

Decatur

Burk, Mrs. James M.....221 S. Third St.
Freeby, Mrs. William C.....1022 Mercer Ave.
Girod, Mrs. Arthur H.....R.R.
Kohne, Mrs. Gerald J.....304 W. Adams St.
Parrish, Mrs. Richard K.....242 S. 2nd St.
Rich, Mrs. Norval S.....R. R. 4
Terveer, Mrs. John B.....1721 W. Monroe St.
Zwick, Mrs. Harold F.....104 E. Rugg

Cutshaw, Mrs. James A.....Monroeville
Harless, Mrs. Fred O.....Monroeville

ALLEN COUNTY

Bluffton

Brickley, Mrs. Harry D.....227 S. Main St.
Buckner, Mrs. Winifred.....116 E. Walnut
Hamilton, Mrs. O. G.....203 E. Central Dr.
Mead, Mrs. C. H.....211 W. Washington

Fort Wayne

A

Adams, Mrs. E. Wade.....1902 Forest Park Blvd.
Adams, Mrs. John R.....2538 Fairfield Vw. Pl.
Aiken, Mrs. Arthur F...R. R. #1, Waterswold Dr.
Aiken, Mrs. Nevin E.....5540 Leo Rd.
Arata, Mrs. Justin E.....224 Ludwig Rd.

B

Bailey, Mrs. Paul.....1840 Pemberton
Ball, Mrs. John R.....4112 S. Harrison
Baltes, Mrs. Joseph H.....1309 Sunset Dr.
Barch, Mrs. John W.....1715 Poinsette Dr.
Bash, Mrs. Wallace E.....1201 Korte Lane
Beams, Mrs. Ralph.....3710 Wawonaissa
Beierlein, Mrs. Karl M.....2716 Butler Road
Bergendahl, Mrs. Emil.....1202 Illsey
Berghoff, Mrs. J. R.....3736 Plymouth
Berghoff, Mrs. Raymond.....4124 Cadena
Beutler, Mrs. Theodore....3505 S. Washington Rd.
Billingsley, Mrs. John.....4720 Crestwood
Blichert, Mrs. Peter A.....4501 Fairfield
Bolman, Mrs. R. Morton.....Hamilton Rd.
Borders, Mrs. Theodore R.....1802 Nevada St.
Bossard, Mrs. John W.....1712 California
Brandt, Mrs. William.....3535 Kirkland

Bridges, Mrs. W. Lloyd.....207 Southridge Rd.
Bromley, Mrs. Luman W. ....410 W. Sherwood Tr.
Brosius, Mrs. Robert H.....3302 Garland
Brown, Mrs. Frederic W.....1813 Wood Moor
Brueggeman, Mrs. Henry O...1202 W. Washington
Bryan, Mrs. Franklin A.....3006 Devon
Buckner, Mrs. Doster.....Bass Rd., R. R. 5
Buckner, Mrs. George D.....4327 Hampshire Drive

C

Carlo, Mrs. Ernest.....5205 Indiana
Cartwright, Mrs. E. L.....3718 Hiawatha Blvd.
Chambers, Mrs. Alan.....4135 S. Harrison
Clark, Mrs. Wm. R.....4002 S. Harrison
Cochran, Mrs. Harry A., Jr...420 W. Sherwood Tr.
Connelly, Mrs. Richard.....3016 Kingsley
Cooney, Mrs. Charles C.....1168 Westover Rd.
Cottrell, Mrs. Robert F.....205 McKinnie
Craig, Mrs. Richard.....1002 Passadena
Culp, Mrs. John E.....2421 Paulding Rd.

D

Datzman, Mrs. Richard.....5402 Bluffton Rd.
Dunstone, Mrs. H. Carter.....2433 Paulding Road

E

Eberly, Mrs. Karl C.....1240 W. Rudisill
Emenhiser, Mrs. John L.....1411 Reed Road

F

Ferguson, Mrs. Arthur N.....328 W. Sherwood
Flaherty, Mrs. Robert.....1835 Forest Park Blvd.
Foy, Mrs. Hayward W.....1816 Forest Park
Franke, Mrs. Gordon.....4452 Sandridge Dr.
Frankhouser, Mrs. Chas. M...7245 Winchester Rd.
Fullam, Mrs. Richard.....4159 Woodstock

G

Garton, Mrs. Harry W.....R. R. 6, Hamilton Rd.
Gastineau, Mrs. David C.....8203 Westridge Rd.
Gerding, Mrs. William J....1721 Forest Park Blvd.
Glassley, Mrs. Stephan.....6950 Stellhorn Rd.
Glock, Mrs. Maurice E.....1502 Hawthorne Rd.
Glock, Mrs. Wayne R.....Tonkel Road
Goebel, Mrs. Carl W.....4102 So. Harrison
Gould, Mrs. John.....3919 S. Harrison
Greenlee, Mrs. Robert L.....3344 Sanibel Dr.
Griest, Mrs. Walter D.....4809 Arlington
Griffith, Mrs. Harrold R. ..1913 Forest Park Blvd.

H

Hackett, Mrs. Walter G.....5220 Crandon Lane
Haffner, Mrs. Herman G.....3606 Mulberry Rd.
Haley, Mrs. Alvin J.....3720 Stellhorn Rd.
Haller, Mrs. Richard C.....6333 Bayberry Dr.
Hamilton, Mrs. Emory D.....2405 Florida Dr.
Harvey, Mrs. Harry G.....2228 Crescent
Hasewinkle, Mrs. August M....3544 Kirkland Lane
Hastings, Mrs. Warren C.....1822 Kensington Rd.
Hattendorf, Mrs. A. Paul.....4041 Old Mill Rd.
Havens, Mrs. Russell E.....1845 Kensington
Hershberger, Mrs. Phillip G....5525 Covington Rd.
Hickman, Mrs. Donald M.....1815 Kensington Rd.
Hillary, Mrs. Robert.....6430 Bittersweet Dr.
Hipskind, Mrs. Richard E.....1416 Wood Moor
Hoffman, Mrs. Arthur F.....3619 Harris Rd.
Holsinger, Mrs. Robert E.....4617 Indiana
Howe, Mrs. Fordyce L.....2540 Springfield
Humphreys, Mrs. John L...3701 S. Washington Rd.

I & J

Isenogle, Mrs. Kenneth.....6016 Allendale Ct.
Jackson, Mrs. John F.....4922 Indiana
Johnston, Mrs. R. N.....2537 Bellview Dr.
Jontz, Mrs. Joseph.....514 Shadyhurst Dr.
Jurgenson, Mrs. Walter T.....5009 Indiana

K

Keck, Mrs. Carleton A.....4633 Crestwood
Kent, Mrs. Richard N.....2717 East Dr.
Keyes, Mrs. Robert C.....1226 Illsey Drive
Kidder, Mrs. Orville T.....Lima Rd.
Kimbrough, Mrs. Robert.....4601 Beaver Ave.
Kleifgen, Mrs. Wm. A.....4602 Tacoma
Klooze, Mrs. Kenneth W.....723 W. Packard
Knight, Mrs. Lewis W.....1220 Kensington
Kruse, Mrs. Edward.....4001 Old Mill Rd.
Kruse, Mrs. Walter E.....4006 Spanish Trail

L

Ladig, Mrs. Donald S.....2720 Fairfield
Lampe, Mrs. Elfred H.....1018 Kinnaird
Land, Mrs. Francis L.....4520 Beaver
Laycock, Mrs. Richard.....5019 Stellhorn Rd.
Leming, Mrs. Ben L.....3005 N. Anthony
Lenk, Mrs. George G.....E. State St. Ext. 5507
Lloyd, Mrs. Robert P.....4111 Victoria
Lohman, Mrs. Robert M.....2138 Owaissa
Lorman, Mrs. James G.....3401 Kirkwood
Loudermilk, Mrs. Jack L.....3032 Glencairn

M

McArdle, Mrs. Edward G....1133 W. Rudisill Blvd.
McBride, Mrs. W. O.....610 Beechwood Circle
McCallister, Mrs. John W.....4215 Drury Lane
McCoy, Mrs. Roy R.....4101 S. Harrison
McDowell, Mrs. George A...2322 Forest Park Blvd.
McEachern, Mrs. Cecil.....4242 Old Mill Rd.
McKeeman, Mrs. Donald H.....1615 Ardmore
Manning, Mrs. George.....4115 Indiana Ave.
Marshall, Mrs. Caesar L.....1215 McCulloch
Mastrangelo, Mrs. Michael J...2718 Priscilla Lane
Mensch, Mrs. James R.....2120 Forest Park Blvd.
Mercer, Mrs. S. R.....3235 W. Washington
Meyer, Mrs. Theo. O.....3728 Kirkwood
Michaelis, Mrs. Steven C.....1255 Korte Lane
Miller, Mrs. Carl G.....457 Oakdale Dr.
Miller, Mrs. Edward D.....2615 East Drive
Miller, Mrs. H. Paul.....6408 S. Calhoun
Miller, Mrs. Mahlon F.....1115 Illsley Dr.
Miller, Mrs. Richard.....5125 Old Mill Road
Miller, Mrs. Wm. J.....2620 Capitol
Moats, Mrs. Carl F.....3210 N. Washington Rd.
Moeller, Mrs. Victor C.....4723 St. Joe Center Rd.
Moravec, Mrs. Arthur.....4711 Old Mill Rd.
Morey, Mrs. Edwin.....709 Kinnaird
Mortenson, Mrs. Leland J....1310 N. Foster Pkwy.
Mueller, Mrs. Lawrence W., 3423 S. Washington Rd.
Murdock, Mrs. Harry L.....1212 Kensington

N-O

Nahrwold, Mrs. E. W.....3314 Irvington Dr.
Nill, Mrs. John H.....5316 South Wayne
Nolan, Mrs. Gerald R.....1102 Kensington
O'Brian, Mrs. John F.....1215 N. Anthony Blvd.
O'Rourke, Mrs. Carroll.....Covington Road
Oyer, Mrs. J. Harold.....2206 Wawonaissa

P

Painter, Mrs. Donald S.....R. R. 1, Southridge Rd.
Parker, Mrs. C. B.....2215 Paulding Rd.
Parrot, Mrs. Donald J.....1809 Kensington
Perrin, Mrs. Kermit F.....2828 Lake Ave.
Pickett, Mrs. Merle E.....4509 Atwood Dr.
Popp, Mrs. Milton F.....3148 Parnell Ave.
Powell, Mrs. M. Jack.....7412 Ridgeknoll Rd.
Priddy, Mrs. Marvin.....2909 Belfast Dr.

R

Ranke, Mrs. Henry.....2301 Fairfield
Rhamy, Mrs. Bonnelle W.....4312 Beaver

Rissing, Mrs. Walter J.....3200 Irvington
Roser, Mrs. Arthur J.....5576 Covington
Rossiter, Mrs. Dudley L.....724 Oakdale Dr.
Rothberg, Mrs. Maurice.....4319 Hartman Rd.
Rousseau, Mrs. John W.....3018 Devon

S

Sahlman, Mrs. Hans.....2042 Woodward
Salon, Mrs. Harry W.....4017 Hiawatha Blvd.
Salon, Mrs. Joel.....4935 Old Mill Road
Salon, Mrs. Nathan L.....7939 Scottwood Court
Sarver, Mrs. Francis E.....4629 Tacoma
Savage, Mrs. Arthur R.....S. Ridge Road, R. R. 1
Schlademan, Mrs. Karl R.....5231 Old Mill Rd.
Schloss, Mrs. Robert.....416 Sherwood Terrace
Schmidt, Mrs. Eugene E.....1119 Maxine Dr.
Schmoll, Mrs. Robert J.....5214 Woodhurst
Schneider, Mrs. Louis A.....1351 W. Sherwood Tr.
Schoen, Mrs. Fred.....5128 S. Wayne
Scoins, Mrs. W. H.....4301 Taylor
Senseny, Mrs. Eugene F.....3112 Beaver
Shaw, Mrs. James E.....3932 Rosewood Drive
Shinabery, Mrs. Lawrence.....1850 Broadway
Sidell, Mrs. James.....1228 Powers
Singer, Mrs. Elmer C.....3121 E. Maple Grove
Smith, Mrs. Phillip L.....2701 Fairfield
Smith, Mrs. Richard B.....4902 Stretford Rd.
Snyderman, Mrs. Sanford C.....3222 N. Wash. Rd.
Somers, Mrs. G. H.....1253 W. Rudisill
Spencer, Mrs. C. Herbert.....2106 Paulding Road
Stanley, Mrs. Robert G.....411 W. Concord Lane
Stauffer, Mrs. Richard C.....3924 Spanish Trail
Steigmeyer, Mrs. David J.....6809 Woodcrest
Stellner, Mrs. Howard A.....3323 Butler Court
Stier, Mrs. Paul.....13120 Ravine Trail, R. R. 6
Stucky, Mrs. Jerry L.....4167 Woodstock Ave.
Stumpf, Mrs. Edwin E.....1118 Elm St.
Sullivan, Mrs. Robert E.....4145 Woodstock

T

Taylor, Mrs. Robert G.....3104 Alexander Dr.
Tennant, Mrs. David L.....3908 Spanish Trail
Terrill, Mrs. Richard.....4727 Old Mill Rd.
Thornton, Mrs. Walter E.....601 Oakdale Dr.
Tomusk, Mrs. August N.....3420 Kirkwood Dr.

U-V

Vogel, Mrs. Lloyd A.....7137 Roseann Pkwy.

W

Walker, Mrs. Floyd.....1201 Forest Ave.
Wallace, Mrs. Collins.....4188 Bueshing
Warfield, Mrs. Chester H.....3924 Harris Rd.
Weber, Mrs. John R.....1215 Sheridan Ct.
Wilkins, Mrs. Robert W.....914 Prange Dr.
Wilson, Mrs. Leslie.....2810 S. Wayne Ave.
Wilson, Mrs. Roland B.....4100 Abbott
Wright, Mrs. William C.....1834 Pemberton Dr.

Z

Zehr, Mrs. Noah.....301 W. Creighton
Zweig, Mrs. Elmer S.....2015 Pemberton

New Haven

Dahling, Mrs. C. Wallace..Carefree Farms, R. R. 2
Dahling, Mrs. S. W.....1229 Rose Ave.
Emenhiser, Mrs. Don C.....1040 Lincoln Highway
Hoetzer, Mrs. Emil M.....Doyle Rd.
Smith, Mrs. G. A.....2313 Florida

Emme, Mrs. Richard W.....R. R. 2, Grabill
Mackel, Mrs. Frederick.....R. R. 1, Huntertown
Harless, Mrs. O. Fred.....Monroeville
Schlegel, Mrs. Edward
2009 Frieze Ave., Ann Arbor, Mich.

BARTHOLOMEW-BROWN COUNTIES

Columbus

Able, Mrs. Walter.....2630 19th St.
Adler, Mrs. David L.....4224 Riverside Dr.
Beggs, Mrs. Lowell F.....2733 Riverside Dr.
Davis, Mrs. Marvin R.....2300 N. Washington St.
Daugherty, Mrs. Forest.....2813 31st St.
Dugan, Mrs. Thomas.....4131 26th St.
Echsner, Mrs. Herman J.....300 Tipton Lane
Fisher, Mrs. Walter S.....906 Franklin St.
Gammell, Mrs. Lloyd.....602 22nd St.
Hart, Mrs. Robert B.....1203 16th St.
Hawes, Mrs. Marvin E.....2975 Franklin Dr.
Henry, Mrs. Alvin L.....1926 Lafayette Avenue
Jacobs, Mrs. E. Robert.....1629 Franklin St.
Knotts, Mrs. Stanley.....2740 Washington St.
Krueger, Mrs. Robert B.....2102 Lafayette Ave.
Macy, Mrs. George W.....2632 Riverside Dr.
Marr, Mrs. Griffith.....Marr Rd.
McCullough, Mrs. Henry.....Old Indianapolis Rd.
Norton, Mrs. Harold J.....909 Pearl St.
O'Bryan, Mrs. Richard B.....3360 Grove Parkway
Overshiner, Mrs. Lyman.....1715 Franklin St.
Ranck, Mrs. Benjamine A.....3366 Grove Parkway
Rau, Mrs. Charles A.....1312 Audubon Dr.
Reid, Mrs. Robert .....2712 Lafayette Avenue
Richmond, Mrs. Wayne.....2971 Tulip Dr.
Ryan, Mrs. Wm. J.....3224 Grove Parkway
Schmitt, Mrs. Richard K.....2639 Riverside Dr.
Sigmund, Mrs. Wm. B.....Davis Road
Snapp, Mrs. Richard A.....1927 Home Ave.
Weinland, Mrs. George C.....R.R. 5
Williams, Mrs. E. K.....3020 Washington St.
Williams, Mrs. E. W.....1902 Franklin St.
Zaring, Mrs. Byron K.....2419 Riverside Dr.

Dudding, Mrs. Joseph E.....Hope
Schneider, Mrs. Kenneth.....Nashville
Seibel, Mrs. Robert.....Nashville

BENTON COUNTY

Altier, Mrs. W. H.....1012 6th St., Fowler
Byrns, Mrs. Howard...303 W. McConnelle, Oxford
Coddens, Mrs. A. L.....Box 342, Earl Park
Leak, Mrs. Robert.....Boswell
McKinney, Mrs. Donald L.....Box 448, Otterbein
Miller, Mrs. Dan T.....R. R. 4, Fowler
Rutherford, Mrs. C.....Otterbein
Scheurich, Mrs. Virgil..State Rd. 55 South, Oxford
Turley, Mrs. Verne L.....R. R. 3, Fowler

BLACKFORD COUNTY

Hartford City

Dodd, Mrs. James U.....The Oaks
Dudgeon, Mrs. Charles A.....421 E. North St.
Jackson, Mrs. Dean D.....401 W. Washington St.
Owsley, Mrs. Guy A.....The Oaks
Parks, Mrs. George O.....State Rd. 26W
Weldy, Mrs. Brice P.....227 W. Franklin St.
Wierzalis, Mrs. Edward.....520 N. Jefferson St.

Burns, Mrs. Paul E.....223 High St., Montpelier
Ingram, Mrs. Richard G.....124 S. Washington St.

BOONE COUNTY

Schaaf, Mrs. Alvin D.....Jamestown

Lebanon

Coons, Mrs. John D.....121 Ulen Blvd.
Coons, Mrs. Ritchie.....138 Ulen Blvd.
Grigsby, Mrs. Hardin.....904 Northfield Drive
Honan, Mrs. Paul.....202 East Dr.
Kern, Mrs. Clarence G.....1019 N. Meridian
Lenox, Mrs. Jack.....203 East Dr.
Weddle, Mrs. Charles O.....1210 N. East
Wiseheart, Mrs. Robert H.....123 Ulen Blvd. Dr.

Gregg, Mrs. Edwin.....320 E. Main, Thorntown
Harvey, Mrs. Ralph.....Zionville
Lovett, Mrs. Harvey D.....R. R., Zionsville

CARROLL COUNTY

Delphi

Baker, Mrs. Eldon E.....204 W. Summit St.
Crampton, Mrs. Chas. C.....218 East Monroe
Maggart, Mrs. Ralph.....R.R. 3
Seese, Mrs. Robert M.....201 W. North St.
Wagoner, Mrs. Geo. W.....305 W. Summit St.

Adams, Mrs. Max R.....Flora
McLaughlin, Mrs. James R.....Flora

CASS COUNTY

Dutchess, Mrs. Charles T.....Galveston

Logansport

Adamski, Mrs. M. S.....614 17th
Bailey, Mrs. Earl W.....2522 North
Ballard, Mrs. Charles A.....R. R. 4, Ballard Rd.
Bean, Mrs. Joseph S.....R. R. 1
Burnett, Mrs. Paul C.....Logansport State Hosp.
Cobb, Mrs. Clarence M.....R. R. 4, Box 8
Davis, Mrs. John C.....2119 North
Eckert, Mrs. Russell A.....R. R. 1
Fitzgerald, Mrs. Brice.....1930 High
Fogel, Mrs. Ernest J.....Logansport St. Hospital
Gatzimos, Mrs. Christos D.....3116 High St. Rd.
Glendening, Mrs. Richard L.....2300 Broadway
Hall, Mrs. Bernard R.....3100 E. Broadway
Harrington, Mrs. James F.....2316 Rolling Ridge
Hedde, Mrs. Eugene L.....2304 Chase Rd.
Hillis, Mrs. L. J.....2410 Hastye Hyll
Horning, Mrs. Richard R.....Logansport St. Hosp.
King, Mrs. Jay M.....2319 May Fair Dr.
Maschmeyer, Mrs. R. H...Logansport St. Hospital
Morrical, Mrs. Russell J.....415 Highland
TerBush, Mrs. Edward L.....R. R. 5
Viney, Mrs. Charles L.....26th and High St.
Wilson, Mrs. Paul H.....R. R. 5
Winter, Mrs. Donald K.....2409 Hastye Hyll

Flanagan, Mrs. E. P.....106 May, Walton
Lybrook, Mrs. Daniel E.....Young America

CLARK COUNTY

Charlestown

Goodman, Mrs. Eli.....333 Oriole Dr.

Clarksville

Mudd, Mrs. Joseph.....103 W. Rosewood Dr.
Wilner, Mrs. Alan.....214 Rosewood Dr.
Wolverton, Mrs. George.....115 Rosewood Dr.

Carr, Mrs. Joseph.....Pine Rd., Henryville
Greene, Mrs. W. R.....Henryville

Jeffersonville

Bizer, Mrs. Mier.....155 Forrest Dr.
Buckley, Mrs. Ernest.....14 Blanchel Terrace
Buehler, Mrs. George.....Route 1, Utica Pike
Carlberg, Mrs. Dale L.....2 Blanchel Terrace
Carney, Mrs. J. T.....2602 Hollywood Dr.
Dare, Mrs. Lee.....215 Sparks Ave.
Graham, Mrs. O. P.....713 E. Maple St.
Havens, Mrs. Alfred Lyle.....203 Sparks Ave.
Havens, Mrs. Thomas.....400 Chippewa
Huoni, Mrs. John.....6 Blanchel Terrace Dr.
Isler, Mrs. Nathaniel.....901 Morningside Dr.
Reed, Mrs. Edsel.....4 Pawnee Dr.
Roby, Mrs. A. L.....2708 Hollywood Dr.
Shaw, Mrs. Houston.....209 Maplewood Dr.
Thompson, Mrs. Walter.....2021 E. Eighth

Meyer, Mrs. Claude J.
225 W. Utica St., Sellersburg
Regan, Mrs. George.....303 Indiana, Sellersburg
Sturgis, Mrs. Donald G...542 Linnwood, Sellersburg
Vandevert, Mrs. Arthur, 202 Highland, Sellersburg

DEARBORN-OHIO COUNTIES

Aurora

Baker, Mrs. Leslie M.....204 Fifth
Frable, Mrs. Frank.....412 Sunnyside Ave.
Irmscher, Mrs. George.....422 Sunnyside Ave.
Jackson, Mrs. Kenneth.....223 Mechanic St.
Olcott, Mrs. Charles W.....305 Sunnyside

McNeeley, Mrs. Matthew J.....Dillsboro

Lawrenceburg

Aldred, Mrs. Allen W.....803 Bode Ave.
Conrad, Mrs. Henry.....370 Bielby Rd.
Fagaly, Mrs. William J.....57 Oakley
Houston, Mrs. Fred D.....533 Ludlow St.
Hunter, Mrs. Lowell.....370 Bielby Rd.
Lindgren, Mrs. Shirley.....20 Oakley Ave.
Morrison, Mrs. George.....107 Billups
Pfeifer, Mrs. James M.....550 Ludlow
Streck, Mrs. Francis A.....547 Ridge Ave.
Weisenberger, Mrs. Brocton L.....902 Ridge Dr.

DECATUR COUNTY

Greensburg

Acher, Mrs. Robert P.....446 E. Washington
Callaghan, Mrs. W. C.....403 Barachel Lane
Dickson, Mrs. Dale D.....700 N. East St.
Miller, Mrs. James C.....178 N. Michigan Ave.
Morrison, Mrs. J. Trevor....161 N. Michigan Ave.
Overpeck, Mrs. Charles.....R. R. 8
Shaffer, Mrs. William R.....214 N. Franklin
Walker, Mrs. Louis A.....R. R. 5

Porter, Mrs. Edward.....Westport

DELAWARE COUNTY

Puterbaugh, Mrs. Karl.....Albany
Montgomery, Mrs. Lall G.
Box 149A, RFD 1, Gaston

Muncie

A

Adams, Mrs. William B.....W. Jackson St. Pike
Alvey, Mrs. Charles R.....515 Greenbriar Rd.
Anthony, Mrs. Harvey M.....822 W. Charles

B

Ball, Mrs. Clay A.....1015 Linden Ave.
Ball, Mrs. Philip.....2820 W. Main St.
Benken, Mrs. Lawrence.....1511 Riley Rd.
Bergwall, Mrs. Warren .....1507 Riley Rd.
Bibler, Mrs. Henry.....2625 Parkway Dr.
Botkin, Mrs. Clyde G.....2904 Riverside Ave.
Botkin, Mrs. Thomas.....2500 Bethel Pike
Brown, Mrs. Leland.....605 Waid Ave.
Brown, Mrs. Stewart D.....R. R. 3, Hamilton Pk.
Brown, Mrs. Thomas.....Isanogel Road
Burwell, Mrs. Stanley W.....3124 Gilbert
Butterfield, Mrs. Robert.....222 Winthrop Rd.
Butz, Mrs. Ralph.....2920 Godman Ave.

C

Chun, Mrs. Wallace.....912 Surry Dr.
Clauser, Mrs. Eldo H.....815 Wayne
Clevenger, Mrs. Joseph H.....3124 University Ave.
Cooper, Mrs. John F.....1700 Winthrop Dr.
Covalt, Mrs. Wendell E.....120 Berwyn Rd.
Cullison, Mrs. John.....2601 Parkway Dr.
Cure, Mrs. Elmer T.....913 University Ave.

D

David, Mrs. George.....2600 W. Gilbert
Dunning, Mrs. Thomas.....3 Briar Rd.

E-F

Funk, Mrs. John.....3700 Peachtree Lane

G

Geckler, Mrs. Charles E.....1007 W. North St.
Gibson, Mrs. Robert.....306 Taft Rd.
Gill, Mrs. Tom.....45 Warwick Rd.
Greiber, Mrs. Marvin.....310 Riley Rd.
Gustafson, Mrs. Milton H.....230 Stradling Rd.

H-I

Hall, Mrs. Robert S.....701 Brentwood
Hammond, Mrs. Keith.....2112 Petty Rd.
Hayes, Mrs. T. R.....19 Warwick Road
Henderson, Mrs. Ramon.....75 Warwick Rd.
High, Mrs. Ralph.....2825 University Ave.
Holmes, Mrs. John.....908 W. Gilbert
Hostetter, Mrs. I. S.....300 Winthrop Rd.
Imhof, Mrs. J. D.....46 Warwick Rd.

K-L

Kalker, Mrs. Morton.....3330 Godman
Kammer, Mrs. Walter F.....1005 W. Parkway Dr.
Kearney, Mrs. William.....2614 Janny Ave.
Kirshman, Mrs. Forrest E.....41 Briar Rd.
Ko, Mrs. Richard.....R. R. 7
Koss, Mrs. Wm. K.....1504 Winthrop Rd.
Kress, Mrs. James W.....3839 Riverside
Lowry, Mrs. Donald.....1218 Alden Rd.

M-N

Mathewson, Mrs. R. C.....R. R. 6
McClintock, Mrs. James A...3121 University Ave.
McCoy, Mrs. George.....1605 Winthrop
McDowell, Mrs. Fletcher W.....1721 N. Tillotson
Moore, Mrs. Tom C.....1011 E. Parkway Dr.
Morris, Mrs. J. W.....222 Stradling Rd.
Moss, Mrs. M. J.....1010 W. Parkway Dr.
Nelson, Mrs. Harold E.....3216 Torquay Rd.

O

Owens, Mrs. Richard R.....3011 Oaklyn Ave.
Owens, Mrs. Thomas.....608 E. Charles

P-Q

Peacock, Mrs. Robert.....R. R. 3
Pippinger, Mrs. Joseph.....1912 Surrey Dr.
Pippinger, Mrs. W. G.....1200 N. Tillotson
Quick, Mrs. Wm. .....Moore Rd.

R

Rettig, Mrs. Arthur.....614 N. McKinley Ave.
Rivers, Mrs. Glynn.....307 Alden Rd.

S

Schoenhals, Mrs. Charles.....1503 Riley Rd.
Schulhof, Mrs. M. G.....921 W. Parkway Dr.
Smith, Mrs. J. S.....1006 E. First St.
Speck, Mrs. Carlson.....1205 Brentwood
Steele, Mrs. Frank M.....421 Bittersweet
Stibbins, Mrs. Warren E.....2908 Torquay Rd.
Stout, Mrs. Francis E.....102 Berwyn Rd.
Stump, Mrs. Richard.....1304 Bethel

T

Taylor, Mrs. Donald.....8 Wildwood Lane
Taylor, Mrs. James A.....1613 Riley Rd.
Tharp, Mrs. Donald.....1517 N. Tillotson
Tobe, Mrs. Robert.....2125 W. Main
Tomlin, Mrs. Hugh M.....2920 Beechwood Ave.

V-W

Voss, Mrs. Gert.....2512 Petty Rd.
Walker, Mrs. Jack.....R. R. 6, Box 385A
Ware, Mrs. Herbert .....1700 Glen Ellyn

Y

Young, Mrs. G. S.....114 Berwyn Rd.

Hinchman, Mrs. Jean .....Parker
Hill, Mrs. Robert .....Yorktown
Moore, Mrs. Will C...White Oak Farm, Yorktown
Rutledge, Mrs. Jean.....R. R. #1, Yorktown

DUBOIS COUNTY

Barrow, Mrs. John.....Dale, P. O. Box 128
Backer, Mrs. Henry George..Ohio St., Ferdinand

Huntingburg

Amini, Mrs. Sohrab.....R. F. D. #2
Bretz, Mrs. John.....Orchard Road
Craig, Mrs. Harry.....5th St.
Scales, Mrs. Alfred B.....Holland Rd.
Scales, Mrs. Allen.....Cedar Heights
Steinkamp, Mrs. Emil.....302 Walnut
Stork, Mrs. Harvey K.....523 First St.

Jasper

Bevan, Mrs. John..... R. R. 2
Eckerle, Mrs. J. E.....711 Clay
Gootee, Mrs. Francis.....Jasper
Gootee, Mrs. Thomas.....Dorbett Street
Heck, Mrs. Martin C.....408 W. 15th
Held, Mrs. George A.....716 W. Ninth
Klamer, Mrs. Charles H.....616 W. 13th St.
Ploetner, Mrs. Edward.....Dorbett Street
Salb, Mrs. J. P.....R. R. #5
Wagner, Mrs. Arthur.....R. R. 5, Box 188

ELKHART COUNTY

Bristol

Neidballa, Mrs. E. G.....R. R. 1
Patrick, Mrs. Glen P.....R. F. D. 1
Schlosser, Mrs. H. C...Seven Gables, W. Vistula St.

Elkhart

Atwood, Mrs. Wm. H., Jr.....520 Cedar St.
Bender, Mrs. Robert L.....125 N. Riverside Dr.
Benson, Mrs. James E.....1501 Fulton St.
Billings, Mrs. Elmer R.....2022 E. Jackson Blvd.
Bloom, Mrs. George R.....1100 E. Jackson Blvd.
Boling, Mrs. Richard C.....407 Village Lane
Bowdoin, Mrs. George E.....3809 Greenleaf Blvd.
Campbell, Mrs. Patrick B.....1618 Cone St.
Classen, Mrs. Pete R. C.....535 W. Wolf Ave.
Compton, Mrs. Walter A.....2225 Greenleaf Blvd.
Conklin, Mrs. Raymond L...215 Swanson Circle W.
Cormican, Mrs. Herbert L...2002 E. Jackson Blvd.
Crandall, Mrs. L. A., Jr.....3600 W. Indiana Ave.
DeDario, Mrs. Leonard M.....1418 Greenleaf Blvd.
Dovey, Mrs. Edward G., Jr.....1430 Ervin St.
Echeverria, Mrs. Rodolfo E.....707 Hiawatha Dr.
Elliott, Mrs. Thomas A.....2001 Stevens Ave.
Finfrock, Mrs. James D.....811 Laurel St.
Fleming, Mrs. Claude F.....229 W. Jackson Blvd.
Futterknecht, Mrs. James C...2313 Morehouse Ave.
Gattman, Mrs. G. Beach.....1319 Lawn Ave.
Hannah, Mrs. Jack W.....1906 E. Jackson Blvd.
Hemingway, Mrs. Norman L.
1700 Rainbow Bend Blvd.
Horswell, Mrs. R. G.....1629 E. Jackson Blvd.
Hull, Mrs. Arthur W.....3333 Greenleaf Blvd.
Hurley, Mrs. James William.....1705 Roys Ave.
Ivy, Mrs. John H.....1311 Kilbourn St.
Jones, Mrs. Robert B.....1833 Rainbow Bend Blvd.
Keating, Mrs. John U.....1416 Strong Ave.
Kesim, Mrs. Musit Husam.....812 Hiawatha Dr.
Kintner, Mrs. Burton E.....3520 E. Jackson Blvd.
Kistner, Mrs. Arthur W.....R. F. D. 3, Box 81
Koehler, Mrs. Elmer George....615 N. Riverside Dr.
Krause, Mrs. Frederick.....1001 St. Clair St.
Luther, Mrs. William C.....1422 Kelbourn St.
Lundt, Mrs. Milo O.....519 S. Second St.
Markel, Mrs. Ivan J.....215 W. Franklin St.
Martin, Mrs. Floyd S.....2301 S. Main St
Martin, Mrs. Paul H.....1519 Strong Ave.
McArt, Mrs. Bruce A.....905 Strong Ave.
Mendez, Mrs. Carlos.....1109 Baker Dr.
Miller, Mrs. Galen R.....2229 Thorndale Ct.
Miller, Mrs. Hugh A., Jr.....417 Prospect St.
Miller, Mrs. Samuel T.....174 Witmer Ave.
Mininger, Mrs. Edward P...1118 E. Jackson Blvd.
Mishkin, Mrs. Irving.....1809 Rainbow Bend Blvd.
Paff, Mrs. Wm. A.....1745 Rainbow Bend Blvd.
Paine, Mrs. George E.....329 Meisner Ave.
Pancost, Mrs. Vernon K.....160 Riverview Ave.
Parshall, Mrs. Dale B.....3538 Gordon Rd.
Rouen, Mrs. Robert L.....1919 E. Jackson Blvd.
Rupe, Mrs. Lloyd O.....R. R. 4, Oakland Ave. Rd.
Sears, Mrs. M. Maywood....4806 W. Indiana Ave.
Sobel, Mrs. Zbigniew W.....433 East Blvd.
Spray, Mrs. Page E.....658 Kilbourn St.
Stubbins, Mrs. William.....15 St. Joseph Manor
Swihart, Mrs. Danny D.....1219 Greenleaf Blvd.
Swihart, Mrs. Homer R.....1621 E. Jackson Blvd.
Swihart, Mrs. Leonard F.....3213 Calumet Ave.
Wilson, Mrs. Orley E.....2505 Greenleaf Blvd.
Work, Mrs. James A., Jr.....4 St. Joseph Manor
Yoder, Mrs. C. Richard.....409 Prospect St.
Zeitler, Mrs. Philip S.....1509 Meadow Lane

Goshen

Bender, Mrs. John M.....418 Marylin Ave.
Bowser, Mrs. Philip G.....707 S. 7th St.
Chandler, Mrs. Leon H.....412 S. Fifth St.
Freeman, Mrs. Floyd M.....309 E. Washington St.
Graber, Mrs. Virgil R.....R. R. #2
Harris, Mrs. Ralph V.....307 S. 7th St.
Hostetler, Mrs. Carl M.....1602 S. Eighth St.
Kennedy, Mrs. Myron S.....1503 West Ave.
Krabill, Mrs. Willard S.....420 Westwood Rd.
Nelson, Mrs. D. Chester.....1210 S. Eighth St.
Quilty, Mrs. Thomas J.....801 S. 7th St.
Smucker, Mrs. Ernest E.....1626 S. 8th St.
Troyer, Mrs. Dana O.....1727 South 13th St.
Troyer, Mrs. George W.....1204 S. 8th St.
Turner, Mrs. John P.....507 Greene Road
Vander Bogart, Mrs. Harry E...1411 S. Eighth St.
Wagner, Mrs. David G.....307 S. Seventh St.
Westfall, Mrs. George S.....2422 S. Main St.
Yoder, Mrs. Albert C.....816 S. Sixth St.

Nappanee

Kendall, Mrs. F. M.....654 Woodland
Price, Mrs. Douglas W.....607 E. Van Buren
Slabaugh, Mrs. Jancy S.....258 N. Main St.

DeFries, Mrs. John J.....New Paris
Fosbrink, Mrs. E. L...218 S. Huntington, Box 157, Syracuse
Ganser, Mrs. Ralph V.....1035 Lincolnway East, Mishawaka
Massanari, Mrs. Walter S.....Millersburg
Miller, Mrs. Donald G...105 Brown St., Middlebury
Zimmerman, Mrs. William H.....R. R. 2, Syracuse

Wakarusa

Abel, Mrs. Robert.....105 E. Harrison
Guttman, Mrs. John B.....201 N. Elkhart Ave.

FAYETTE-FRANKLIN COUNTIES

Brookville

Foreman, Mrs. Walter A.....617 Main
Smith, Mrs. H. N.....812 Main
Seal, Mrs. Perry F.....901 Main

Connersville

Ashworth, Mrs. Louis Neff.....2027 Indiana Ave.
Brookman, Mrs. Robert E.....2750 Grand Ave.
Clark, Mrs. Helen Nevin.....401 Western Ave.
Ellis, Mrs. George M.....108 East 10th St.
Gregg, Mrs. Albert F.....835 Lincoln Ave.
Hudson, Mrs. Arlington M.....80 East Drive
Kauffman, Mrs. Robert W.....R. F. D. 2
Kemp, Mrs. W. Alfred.....403 W. 28th St.
Lockhart, Mrs. Jack M.....54 West Drive
Mountain, Mrs. Francis B.....1720 Virginia Ave.
Neukamp, Mrs. Frank H.....1810 Virginia Ave.
Sanders, Mrs. Bertram W.....1533 Virginia Ave.
Steinem, Mrs. Joseph L.....R. F. D. #3
Watterson, Mrs. Gerald T.....1704 Virginia Ave.

Poston, Mrs. C. L.....R. R. 2, Laurel

FLOYD COUNTY

Jeffersonville

Baxter, Mrs. S. M.....3100 Centralia Ct.
Gentile, Mrs. John P.....3405 Centralia Ct.
McCullough, Mrs. J. Y.....3500 Centralia Ct.
Sloan, Mrs. Herbert.....213 Lynnwood, Lincoln Heights

New Albany

Baker, Mrs. A. M.....2523 Glenwood Ct.
Baxter, Mrs. J. W., Jr.....426 Woodrow Ave.
Best, Mrs. Maurice.....1233 Vance Ave.
Bird, Mrs. J. E.....1308 E. Spring St.

Briscoe, Mrs. C. E.....1413 E. Spring St.
Brown, Mrs. K. H.....1654 Hedden Park
Buchman, Mrs. Marshall.....1824 State St.
Cannon, Mrs. Daniel H.....1203 E. Spring St.
Davis, Mrs. Parvin M.....Paoli Pike
Edwards, Mrs. W. F.....615 Beharrel Ave.
Garner, Mrs. Wm. H.....922 E. Spring St.
Garner, Mrs. William H., Jr.....1510 Sunset Dr.
Geyer, Mrs. Joseph H.....Old Vincennes Rd.
Harris, Mrs. Robert W.....1923 Ekin Avenue
Hess, Mrs. P. Patrick.....1313 Ridgeway Ave., Silver Hills
Higgins, Mrs. John R.....Old Vincennes Rd.
LaFollette, Mrs. Donald R.....Crestview
LaFollette, Mrs. Robert E.....2515 Glenwood Ct.
Nedelkoff, Mrs. Bogban.....R. R. 2, Box 500
Paris, Mrs. John M.....2003 Lindberg Ct.
Pierson, Mrs. Percy R.....1430 Silver St.
Robertson, Mrs. A. N.....323 E. Ninth St.
Sonne, Mrs. Irvin.....1607 Hedden Court
Streepey, Mrs. Jefferson.....1919 DePauw Ave.
Voyles, Mrs. Harry.....425 Beharrel Ave.
Weaver, Mrs. W. W.....Crestview
Wolfe, Mrs. Morton F.....1679 Terry Lane
Wolfe, Mrs. Nelson A.....Graybrook Lane
Worley, Mrs. H. L.....1923 DePauw Ave.

Engleman, Mrs. Harry K.....Georgetown

FULTON COUNTY

Miller, Mrs. Virgil C.....P. O. Box 37, Akron
Stinson, Mrs. Arthur E.....Athens
Glackman, Mrs. John C.....Culver
Kraning, Mrs. Kenneth K. 834 West Shore Dr., Culver

Rochester

Dielman, Mrs. Franklin C.....920 Jefferson St.
Herendeen, Mrs. Elbie V.....317 W. Seventh St.
King, Mrs. Milo O.....110½ E. Eighth St.
Richardson, Mrs. Chas. L.....506 Pontiac St.
Rowe, Mrs. Howard H.....417 W. Ninth St.
Rusler, Mrs. Wm. Jr.....R. R. 2
Stinson, Mrs. Dean K.....1318 Main St.

GIBSON COUNTY

Geick, Mrs. Raymond Godfrey 207 N. Main, Ft. Branch
Marchand, Mrs. Edwin V.....Haubstadt

Oakland City

Clark, Mrs. Carl M.....123 Vine St.
Dye, Mrs. William E.....518 S. Jackson St.
Wood, Mrs. Russell W.....High St.

Princeton

Carpentier, Mrs. Harry Frank.....319 E. State
Folck, Mrs. John Kieffer.....528 N. Main St.
Graves, Mrs. Orville Melvin.....125 W. Walnut
McCarty, Mrs. Virgil.....403 W. Spruce
McElroy, Mrs. Robert Samuel.....404 W. Walnut
Peck, Mrs. James Frank.....605 W. Monroe
Weitzel, Mrs. Roland Earl.....309 W. Spruce
Wells, Mrs. William R.....Broadview Addition

GRANT COUNTY

Malott, Mrs. Fred.....Converse
Grant, Mrs. Arthur.....501 W. 3rd St., Fairmount
Yale, Mrs. Charles.....Fairmount
Garrison, Mrs. L. J.....515 E. Main St., Gas City
Koontz, Mrs. William A.....334 E. Main, Gas City
Baskett, Mrs. R. J.....Jonesboro

Marion

Abell, Mrs. Charles F.....915 Wabash Ave.
Alderfer, Mrs. Henry.....919 Euclid Ave.
Ansbacher, Mrs. Stefan.....R. R. 1
Ayres, Mrs. W. W.....820 Jeffras Ave.
Bailey, Mrs. Douglas.....1316 Elm Lane
Bloom, Mrs. A. Ward.....610 River Rd.
Braunlin, Mrs. Robert.....315 N. Hill St.
Brown, Mrs. Robert M.....825 Euclid Ave.
Comeau, Mrs. Wm. J.....918 Hawthorne
Cunningham, Mrs. Robert.....1017 Euclid Ave.
Davis, Mrs. Joseph B.....121 No. Washington St.
Davis, Mrs. Merrill S.....723 Euclid Ave.
Davis, Mrs. Richard M.....1119 Overlook Rd.
Eshleman, Mrs. L. H.....129 North Washington
Fisher, Mrs. Henry.....R. R. 4
Ganz, Mrs. Max.....904 Jeffras Ave.
Goldsmith, Mrs. David.....1225 Jeffras Ave.
Hockett, Mrs. Harry G.....34 Veterans Hosp.
Hover, Mrs. Galen M.....27 A Veterans Hosp.
Huff, Mrs. Asher.....110 North E. St.
Hummel, Mrs. R. M.....2411 Lommel Lane
Jarrett, Mrs. John C.....3418 Wildwood Dr.
Lahr, Mrs. Richard E.....1627 Broadview Dr.
Langrall, Mrs. Harrison M.....715 Crossway
Lavengood, Mrs. Russell W.....Charles Rd. R. R.
Lonngren, Mrs. Dudley.....307 Kem Rd.
Love, Mrs. Logan.....808 Crossway
Marsh, Mrs. Myrtle F.....1010 E. Sherman
Miller, Mrs. H. Allison.....1010 W. 4th Street
Miller, Mrs. John R.....33 A Veterans Hosp.
Pattison, Mrs. John D.....1315 Elm Lane
Pearcy, Mrs. Marcene.....3116 Coats Rd.
Powell, Mrs. J. P.....127 River Dr.
Price, Mrs. Ambrose M.....2938 S. Branson St.
Ranno, Mrs. Frederick S.....Veterans Hosp.
Reid, Mrs. James D.....505 Buckingham Dr.
Renbarger, Mrs. Lester.....2111 Wabash Pike
Rhamy, Mrs. Arthur.....1230 Euclid Ave.
Rhomy, Mrs. Donald F.....1632 Broadview Dr.
Rhorer, Mrs. John G.....711 Wabash Ave.
Richardson, Mrs. Jos. H.....911 River Dr.
Roll, Mrs. William A.....1403 Elm Lane
Schroeder, Mrs. Robert W.....2123 S. Boots St.
Shoemaker, Mrs. Richard L.....211 E. South A St.
Simmons, Mrs. Frederick H.....2607 Beech Lane
Skomp, Mrs. Claud E.....1123 Euclid Ave.
Smith, Mrs. Barton T.....1005 Audubon Dr.
Snowhite, Mrs. Arthur B.....508 S. Whites Ave.
Stancliff, Mrs. Floyd S.....Veterans Hosp.
Stenger, Mrs. R. H.....227 North E. St.
Thompson, Mrs. B. Jay.....123 River Dr.
Walton, Mrs. R. Lee.....1019 Lincolnshire Blvd.
Warren, Mrs. Carroll B.....1211 Euclid Ave.
Weinberg, Mrs. Samuel.....905 Euclid Ave.
Woodbury, Mrs. J. W.....711 W. Nelson St.
Young, Mrs. Robert.....Northwood Dr.

King, Mrs. P. C.....Swayzee
Beck, Mrs. Thomas.....Swayzee
Taylor, Mrs. E. C.....Upland
Rifner, Mrs. E. S.....Van Buren
McIlwain, Mrs. Robert.....Warren

HAMILTON COUNTY

Karlick, Mrs. Joseph R.....Arcadia
Thomas, Mrs. W. Clayton 80 4th Ave. S.E., Carmel
Havens, Mrs. Oscar.....Cicero

Noblesville

Ambrose, Mrs. J. C.....298 N. Ninth
Campbell, Mrs. Sam W.....R. R. 1
Hash, Mrs. John S.....R. R. 4
Haywood, Mrs. John G.....1260 Lincoln Dr.
Kraft, Mrs. Haldon C.....R. R. 5
Lanning, Mrs. R. Adrian.....R. R. 3
Lloyd, Mrs. Joe R.....559 Sunset Dr.

Shanks, Mrs. Ray W.....R. R. 5

Manhart, Mrs. Doyle B....501 E. 2nd St., Sheridan
Newby, Mrs. Eugene.....209 W. 4th St., Sheridan
Connoy, Mrs. Andrew.....Westfield
Connoy, Mrs. Leo.....139 N. Union St., Westfield
Long, Mrs. Malcolm
531 E. Vista Dr., Indianapolis 80

HANCOCK COUNTY

Johnston, Mrs. W. R.....Charlottesville
Scott, Mrs. Robert.....Charlottesville
Rhynearson, Mrs. Hal R...235 Merrill St., Fortville

Greenfield

Allen, Mrs. Joseph.....210 E. Lincoln
Beeson, Mrs. Wilbur.....209 N. Penn.
Endicott, Mrs. Wayne.....115 McClellan
Farrell, Mrs. John J., Jr.....304 W. McKenzie Rd.
Gill, Mrs. Dee Dar.....328 Park St.
Kinneman, Mrs. Robert E.....McClelland Dr.
Kirby, Mrs. Ted C.....122 Grandison Rd.
Smith, Mrs. John H.....919 Maple Dr.
Vingis, Mrs. Bronie A.....705 N. State St.
Woods, Mrs. James R.....715 N. East St.

Cagle, Mrs. Robert.....New Palestine
Miller, Mrs. Joseph A.....R. R. 12, Box 230 Y, Oaklandon
Kuhn, Mrs. Robert.....Wilkinson
Trees, Mrs. Nellie.....Wilkinson
Freeborn, Mrs. Warren.....Oaklandon
Garrison, Mrs. James.....Cumberland
Pierson, Mrs. Thomas A.....New Palestine

HENDRICKS COUNTY

Black, Mrs. James..8 Green Acre Ct., Brownsburg
Foltz, Mrs. Lloyd....6 Greenacre Dr., Brownsburg
Scudder, Mrs. A. N.....24 N. Grant, Brownsburg
Walker, Mrs. Thomas.....Fairfield Hts.

Danville

Gibbs, Mrs. Joseph W.....445 E. Mill St.
Koch, Mrs. Elmer.....301 S. Bowen
Kirtley, Mrs. Robert W.....R. R. 3, Box 196
Terry, Mrs. Lloyd.....292 W. Marion

Ellis, Mrs. L. Hall.....Lizton
Karpel, Mrs. Bernard.....R. R., Mooresville
Scamahorn, Mrs. Malcolm.....Pittsboro

Plainfield

Aiken, Mrs. Milo M.....140 N. Center
Cohen, Mrs. Irvin.....645 E. Main St.
Haggard, Mrs. David B.....R. R. 2, Box 23a
Stafford, Mrs. William C.....625 S. East St.
Warbinton, Mrs. Fred.....R. R. 2, Box 13T

HENRY COUNTY

New Castle

Amos, Mrs. Robert L.....924 Lincoln Ave.
Balcom, Mrs. Francis.....2003 Wuthering Dr.
Bledsoe, Mrs. James.....Hillsboro Rd.
Brock, Mrs. J. T.....Rd. 36 East
Burnett, Mrs. Arthur B.....801 Melody Lane
Cain, Mrs. David R.....3701 S. Memorial Dr.
Craig, Mrs. Alex F.....415 Raintree Dr.
Davies, Mrs. Robert R.....1125 Audubon Rd.
Easter, Mrs. James N.....2136 W. Raintree Dr.
Fisher, Mrs. John Edward....1135 Woodlawn Dr.
Foster, Mrs. Ray T.....420 N. Main
Harrison, Mrs. Benjamine L.....233 Bundy Ave.
Heilman, Mrs. William C.....1111 Audubon Rd.
Heilman, Mrs. William C. Jr....1112 St. James Ct.
Hill, Mrs. Kenneth C.....707 Leland St.
Iterman, Mrs. George.....729 I St.
Kennedy, Mrs. W. U.....701 S. 14th St.
Life, Mrs. Homer L.....1101 St. James Dr.
McDonald, Mrs. Frank G.....527 S. Main St.
McElroy, Mrs. James S.....1213 Audubon Rd.
McKee, Mrs. Roy.....Parkplace
Murray, Mrs. William.....100 Van Nuyes Rd.
Saint, Mrs. William.....705 Hawthorn Rd.
Smith, Mrs. Mark.....631 S. 11th St.
Steussey, Mrs. Calvin.....601 Hosier Dr.
Stout, Mrs. Walter M.....1103 Audubon Rd.
Strickler, Mrs. Paul J.....719 Fair Oaks Dr.
Thorne, Mrs. Charles E.....1225 Audubon Rd.
Vivian, Mrs. Donald E.....2715 Fair Oaks Dr.
Wiggins, Mrs. D. S.....219 S. 12th

Clark, Mrs. M. E.....R. R., Milton
Hollenberg, Mrs. A. E.
105 N. Franklin St., Hagerstown
Robertson, Mrs. William.....Spiceland
Stauffer, Mrs. George E.....Mooreland
Donahue, Mrs. Francis E.....Dublin
Marshall, Mrs. Lloyd.....Walnut, Mt. Summit
Leonard, Mrs. H. Wiatt
108 N. Washington St., Knightstown

HOWARD COUNTY

Denton, Mrs. Larkin.....S. Meridian, Greentown
Shoup, Mrs. E. M.....N. Meridian, Greentown

Kokomo

Adams, Mrs. C. J.....1216 W. Superior
Alward, Mrs. J. H.....401 W. Walnut
Artis, Mrs. Myrle E.....910 E. Broadway
Ault, Mrs. Carl H.....3015 Dellwood Drive
Behn, Mrs. Walter.....1208 Highland
Belding, Mrs. Ray T.....3129 Mayfair Dr.
Boughman, Mrs. J. D.....1515 W. Jefferson
Bowers, Mrs. Copeland C.....1530 W. Taylor
Bowers, Mrs. Garvey B.....421 Morningside
Bowers, Mrs. John A.....1535 W. Jefferson
Bradley, Mrs. Richard V.....3210 Janice Dr.
Brown, Mrs. Earl R., Jr.....1414 Kingston Rd.
Bruegge, Mrs. Theodore J.....2225 S. Wabash
Cattell, Mrs. Lee M.....1235 W. Sycamore
Clarke, Mrs. Elton R.....4320 W. Sycamore
Conley, Mrs. Thomas M.....2811 Dellwood Dr.
Craig, Mrs. R. A.....West Sycamore Rd.
Craig, Mrs. Ruben.....410 S. Hickory Lane
Cuthbert, Mrs. F. S.....1027 W. Walnut
Earl, Mrs. Max M.....1735 W. Walnut
Ericson, Mrs. Homer S.....124 Leafy Lane
Ferry, Mrs. Paul J.....1207 W. Sycamore
Fields, Mrs. Donald L.....3021 Mayfair
Frazier, Mrs. Jack L.....2318 S. Wabash
Fretz, Mrs. Richard C.....145 Westmorland Dr.
Golper, Mrs. Marvin N.....411 Morningside Drive
Good, Mrs. Richard P.....227 N. Forest Dr.
Grothouse, Mrs. Carl B.....515 Rainbow Dr.
Halfast, Mrs. Richard W.....2505 Katherine Ave.
Hutto, Miss Arvilla.....1020 W. Walnut
Hutto, Mrs. William H.....West Sycamore Rd.
Jewell, Mrs. G. M.....1318 W. Sycamore
Kremers, Mrs. George A.....2401 S. Wabash
Martin, Mrs. Will J.....409 W. Sycamore
McClure, Mrs. Warren N.....309 Lody Lane
McIndoo, Mrs. R. E.....820 W. Walnut
Mendelson, Mrs. Stanley M.....2325 S. Wabash
Michael, Mrs. Robert L.....4610 W. Sycamore Rd.
Morrison, Mrs. W. R.....415 Conradt Ave.
Murray, Mrs. Ernest C.....2200 S. Webster
Paris, Mrs. Durward W.....2417 S. LaFountain
Perkins, Mrs. John L.....2425 S. Washington
Phares, Mrs. Robert W.....R. R. 1, Box 31A
Prather, Mrs. Phillip E.....123 Magnolia Dr.
Rudicel, Mrs. Max W.....1604 Kingston Rd.
Schwartz, Mrs. F. C.....5015 W. Sycamore Rd.
Shenk, Mrs. Earl M.....306 N. Webster

Smith, Mrs. G. J.....821 E. Dixon St.
Sorenson, Mrs. Raymond.....4401 Mayfield Dr.
Wachob, Mrs. Tom W., Jr.....806 James Dr.

Evans, Mrs. Robert.....Russiaville
Ware, Mrs. John R.....Russiaville

HUNTINGTON COUNTY

Huntington

Brubaker, Mrs. Harold S.....721 Flaxmill Rd.
Casey, Mrs. Stanley M.....408 E. Market St.
Clark, Mrs. Joseph H.....816 Henry St.
Cope, Mrs. Stanton E.....1022 N. Jefferson St.
Doerman, Mrs. Paul E.....1522 Cherry St.
Erehart, Mrs. Mark G.....Maple Grove Rd.
Eviston, Mrs. J. Boyd.....1362 Poplar St.
Gill, Mrs. D. Richard.....1412 Oak St.
Grayston, Mrs. Wallace S.....303 E. Market St.
James, Mrs. Thomas, Jr.....1044 Poplar St.
Johnston, Mrs. Robert G.....339 E. Market St.
Marks, Mrs. Howard H.....1120 N. Jefferson
Meiser, Mrs. Robert D.....1738 Cherry St.
Mitman, Mrs. Floyd B.....1470 Poplar St.
Peare, Mrs. Reeve B.....1568 Jefferson St.
Omstead, Mrs. Trevalyn W.....229 Vine Street
Van Campen, Mrs. Warren.....354 E. Washington
Wagner, Mrs. Richard W.....Old Andrews Rd.

Woods, Mrs. Halden C.....Markle
Cooper, Mrs. B. Trent.....Roanoke
Bennett, Mrs. J. B.....Warren

JACKSON-JENNINGS COUNTIES

Brownstown

Gillespie, Mrs. G. R.....701 Commerce
Shields, Mrs. Jack.....721 W. Spring
Scharbrough, Mrs. William.....Brownstown

Crothersville

Adair, Mrs. W. K.....208 S. Armstrong
Bard, Mrs. Frank B.....305 E. Howard

North Vernon

Calli, Mrs. Louis J.. .....408 S. State
Ellis, Mrs. Forrest D.....130 W. Long St.
Johnson, Mrs. William J.....318 Jennings St.
Matthews, Mrs. Dennis W.....109 W. Walnut St.
Thayer, Mrs. Benet W.....214 Jennings St.

Seymour

Baxter, Mrs. Harry....710 West Dr., Sunset Pkwy.
Black, Mrs. J. M...671 Braewick Rd., Sunset Pkwy.
Bobb, Mrs. Kenneth E.....311 Lee Blvd.
Bosch, Mrs. Ralph O...930 South Dr., Sunset Pkwy.
Day, Mrs. Durbin.....515 W. Sixth St.
Graessle, Mrs. H. P....640 East Dr., Sunset Pkwy.
Kamman, Miss Martha.....332 W. Oak St.
Martin, Mrs. Guy.....1408 Ewing Rd.
Ripley, Mrs. John W.....2001 Ewing St.
Shortridge, Mrs. Wilbur H.....411 Mill St.
Templeton, Mrs. Ian.....348 Carter Blvd.
Wiethoff, Mrs. C. A...615 West Dr., Sunset Pkwy.

JASPER-NEWTON COUNTIES

Schantz, Mrs. Richard.....Remington
Schoonveld, Mrs. Arthur.....Brook
Yegerlehner, Mrs. R. S.....Kentland
Parker, Mrs. John.....Goodland
Brady, Mrs. Kingdon.....Morocco

Rensselaer

Beaver, Mrs. Raymond E.....111 Thompson St.
Greene, Mrs. Robert W.....732 Elza St.
Jones, Mrs. Edwin F.....617 Dean Place
O'Brien, Mrs. Francis E.....530 Park Ave.
Ockermann, Mrs. Kenneth R.....202 Home St.
Williams, Mrs. Paul A.....402 N. Weston St.

JAY COUNTY

Andrews, Mrs. Frank.....R. R. 1, Geneva
Donnally, Mrs. George.....R. R. 1, Geneva
Heller, Mrs. N. L.....Dunkirk

Portland

Badders, Mrs. Ara C.....709 W. North
Cripe, Mrs. Wm. H.....507 W. High
Fitzpatrick, Mrs. James S.....405 W. Race
Gillum, Mrs. Eugene.....W. Votaw Street
Keeling, Mrs. F. E.....609 W. Race
Morrison, Mrs. George G.....R. R. #4
Schenck, Mrs. Ralph.....R. R. 2
Spahr, Mrs. Donald E.....615 W. Race
Steffy, Mrs. Ralph M.....321 E. Race
Vormohr, Mrs. J.....S. Meridian St.

JOHNSON COUNTY

Hibbs, Mrs. W. G.....R. F. D. 1, Whiteland

Franklin

Andrews, Mrs. Hugh K.....R. F. D. 4
Bullers, Mrs. Robert C.....395 S. Home Ave.
Bullington, Mrs. George.....R. F. D. #4
Chappel, Mrs. A. T.....1101 Hillview Dr.
Deppe, Mrs. Charles R.....1215 Park Ave.
Ferrara, Mrs. Joseph F.....1000 E. King St.
Foster, Mrs. R. H. K.....1025 Orchard Lane
Jones, Mrs. Charles A.....1010 E. Adams Dr.
Mock, Mrs. Harry E.....201 E. Monroe St.
Murphy, Mrs. Harry E.....150 N. Main St.
Portteus, Mrs. Walter L.....R. R. 2
Province, Mrs. Wm. D.....51 N. Water St.
Records, Mrs. Arthur W.....216 E. Jefferson St.
Ritteman, Mrs. George.....R. R. 3, Box 19A
Stogsdill, Mrs. W. W.....R. R. #4
Walters, Mrs. Jack L.....1205 E. Jefferson St.

Greenwood

Brown, Mrs. George E.....Beech Park Dr.
Fox, Mrs. Richard.....110 Roselane
Kunz, Mrs. Albert.....510 Howard Rd.
Link, Mrs. Charles.....360 N. Madison Ave.
Michledt, Mrs. John.....243 S. Madison Ave.
Onyett, Mrs. Harold.....R. R. 3, Box 32
Sheek, Mrs. Kenneth I.....407 S. Forest Dr.
Snodgrass, Mrs. Robert.....360 S. Madison
Tiley, Mrs. George.....40 N. Madison
Young, Mrs. Joseph W.....400 N. Madison St.

KNOX COUNTY

Scudder, Mrs. J. A.....Edwardsport
Shanklin, Mrs. Jack L.....Bicknell

Vincennes

Anderson, Mrs. John.....1202 Busseron St.
Anderson, Mrs. Richard M.....Monroe City Rd.
Arbogast, Mrs. Paul B.....1420 Old Orchard Rd.
Barrett, Mrs. Thomas L.....2520 Old Orchard Rd.
Bartlett, Mrs. Donald T.....1405 Kimmell Rd.
Beckes, Mrs. Ellsworth W.....220 N. 5th
Black, Mrs. Boyd K.....1008 State Road 67-N
Chattin, Mrs. Herbert O.....729 Main
Coffel, Mrs. Melvin H.....Simpson Lake
Corsentino, Mrs. Bart.....110 State Rd. 67
Curtner, Mrs. Myron L.....216 N. Sixth
Edwards, Mrs. Edward T., Jr....Old Bruceville Rd.
Ewing, Mrs. Nathaniel D.....Monroe City Rd.
Hendrix, Mrs. Charles.....1202 E. Sycamore
Humphreys, Mrs. Joe S.....1602 Weed Lane
McCormick, Mrs. Hubert D.....518 N. Fourth
McDowell, Mrs. Mordecai M.....1322 Audubon Rd.
McMahan, Mrs. V. C.....Monroe City Rd.
Nichols, Mrs. Robert J.....1515 Burnett Lane
Parmenter, Mrs. Harry B.....205 Elm Ln.

Reilly, Mrs. James F.....401 Buntin
Shaffer, Mrs. Kenneth.....2600 Ridge Rd.
Smith, Mrs. S. Joseph.....504 N. Fourth Street
Smith, Mrs. Ralph O.....Old Bruceville Rd.
Spencer, Mrs. Frederic.....902 Perry Street
Stein, Mrs. Richard A.....1209 Old Orchard Rd.
Stewart, Mrs. Frank W.....Hillcrest Rd.
Sullenger, Mrs. A. A.....803 Seminary St.
Tolbert, Mrs. Robert D.....9 S. 20th
Vaughn, Mrs. Walter R.....2018 Prospect Ave.
von der Lieth, Mrs. William C.....Monroe City Rd.
Welch, Mrs. Norbert M.....Monroe City Rd.

KOSCIUSKO COUNTY

Baum, Mrs. John R.....307 7th St., Winona Lake
Hursey, Mrs. Virgil G.....Milford
Pierson, Mrs. Pearl H.....R. R. 1, Silver Lake
Urschel, Mrs. Dan L.....Mentone
Wilson, Mrs. Wymond B...P. O. Box 421, Mentone

Warsaw

Arford, Mrs. John E.....E. Center St.
Cron, Mrs. William.....R. R. 2
Doremire, Mrs. Robert D.....R. R. 2
Hashemi, Mrs. Hossein.....1306 Ranch Rd.
Haymond, Mrs. George M.
Country Club Rd., R. R. 2
Hillery, Mrs. John L.....823 E. Center
Laird, Mrs. L. A.....322 S. Indiana
Murphy, Mrs. Samuel C.....216 South High St.
Reed, Mrs. E. A.....1219 E. Main St.
Richer, Mrs. Orville.....914 E. Main St.
Schlemmer, Mrs. George H.....528 N. Lake St.
Shrader, Mrs. Carl.....Spring Hill Acres
Thomas, Mrs. E. Winton.....711 E. Main St.

LAKE COUNTY

Cedar Lake

Miller, Mrs. Donald C.....P. O. Box 297
Misch, Mrs. William A.....R. R. 4, Box 58

Crown Point

Dhein, Mrs. Donald T.....6744 Jefferson St.
Gutierrez, Mrs. P. E.....729 Williams Dr.
Horst, Mrs. W. N.....R. R. 7, Box 51

East Chicago

Barron, Mrs. Elmer A.....3902 Ivy St.
Campagna, Mrs. E. A.....4320 Ivy St.
Ernst, Mrs. H. C.....4219 Baring Ave.
Fleischer, Mrs. J. C.....4135 Ivy St.
Grosso, Mrs. William G.....4132 Northcote Ave.
Gustaitis, Mrs. John W.....4318 Parrish Ave.
Niblick, Mrs. James S.....4115 Fir St.
Shapiro, Mrs. Joseph.....4214 Parrish Ave.

East Gary

Mather, Mrs. J. Winford.....2367 Vigo St.
Penn, Mrs. R. A.....2334 Vigo St.
Valencia, Mrs. Monico.....2421 Walnut St.

Gary

Abramson, Mrs. Allen .....7001 E. 1st Ave.
Almquist, Mrs. C. O.....550 Lincoln St.
Armalavage, Mrs. Leon J.....6572 Birch St.
Barton, Mrs. Reginald.....7165 Birch St.
Behn, Mrs. Walter.....1514 W. 5th St.
Bills, Mrs. R. J.....444 Fillmore St.
Bills, Mrs. Robert N.....534 Lincoln St.
Brady, Mrs. Samuel J.....451 Garfield St.
Bringas, Mrs. Irinco B.....803 Johnson St.
Brincko, Mrs. John .....3537 Harrison St.
Burger, Mrs. Robert.....6735 Hemlock St.
Cahue, Mrs. A. R.....634 Taft
Carberry, Mrs. G. A.....591 Johnson St.
Carbone, Mrs. Joseph A.....526 Johnson St.
Chevigny, Mrs. Julius J.....654 Johnson St.
Cooper, Mrs. Leo K.....670 Hayes St.
Dierolf, Mrs. Edward J.....630 Montgomery St.
Elliott, Mrs. Ralph A.....1726 W. Sixth Ave.
English, Mrs. Hubert M.....575 Taft St.
Fadell, Mrs. Mathew J.....701 W. 55th Ave.
Gallinatti, Mrs. J. J.....7413 Locust St.
Glover, Mrs. W. J.....3540 Taylor Ave.
Goldberg, Mrs. Harold B.....825 W. 35th Ave.
Goldstone, Mrs. Adolph.....1430 W. Seventh St.
Goldstone, Mrs. Joseph.....600 Cleveland St.
Hadey, Mrs. James H.....800 Hayes St.
Jahns, Mrs. A. A.....655 Roosevelt St.
Kendrick, Mrs. Frank J.....701 Polk St.
Kobrin, Mrs. Meyer W.....2300 W. Sixth Ave.
Kolletis, Mrs. J. G.....847 W. 45th St.
Kopcha, Mrs. Joseph E.....650 Pierce St.
Lazo, Mrs. Vincent.....707 Harrison St.
Lebioda, Mrs. Henry S.....230 Morningside Ave.
Lorenty, Mrs. T. B.....3654 Madison St.
Manalo, Mrs. F. S.....538 Lincoln St.
May, Mrs. R. Milton.....667 Van Buren St.
Milos, Mrs. Robert.....725 Filmore St.
Morris, Mrs. Hyman R.....2401 W. Sixth Ave.
Moswin, Mrs. Jack A.....701 Arthur St.
Nelson, Mrs. Walfred A.....1050 Warren St.
Ornelas, Mrs. Joseph F.....6339 Oakwood Lane
Pappas, Mrs. Edward T.....569 Pierce St.
Poracky, Mrs. Bernard F.....5598 Van Buren St.
Radigan, Mrs. Leo R.....6624 Birch St.
Robinson, Mrs. Walter K...500 N. Montgomery St.
Roth, Mrs. Leo.....7033 E. 1st Ave.
Rubin, Mrs. Simon S.....2131 W. Fifth Ave.
Ryan, Mrs. Hubert J.....630 McKinley St.
Sala, Mrs. Joseph J.....2333 W. Fifth Ave.
Schultz, Mrs. Kurt J.....5814 Roosevelt St.
Scully, Mrs. John T.....715 Johnson St.
Shevick, Mrs. Alexander.....733 Filmore St.
Stimson, Mrs. Harry R.....4338 Jefferson St.
Thomas, Mrs. Daniel D.....2001 W. 7th Ave.
Vye, Mrs. J. Preston.....3620 Madison St.
Yast, Mrs. Charles J.....740 Filmore St.
Yocum, Mrs. Paul S. Jr.....2200 Ranburn
Yocum, Mrs. Paul S., Sr.....6999 Hemlock St.
Young, Mrs. George M.....4580 Washington St.
Zucker, Mrs. Edward.....7009 E. 1st St.

Griffith

Lundeberg, Mrs. Ralph A.....1211 N. Harvey
Siekierski, Mrs. J. M.....445 N. Broad Street

Hammond

Allegretti, Mrs. Michael L.....6237 Forest Ave.
Bacevich, Mrs. A. J.....6939 Olcott Ave.
Beconovich, Mrs. Robert.....6540 Forest Ave.
Bombar, Mrs. Leslie E.....6826 Rosewood
Bonaventura, Mrs. Angelo P...7112 Woodmar Ave.
Cotter, Mrs. Edward R.....7225 Knickerbocker
Dosado, Mrs. E. B.....7530 Magoun
Eggers, Mrs. Ernest.....635 165th St.
Eggers, Mrs. H. W.....6542 Hobman Ave.
Egnatz, Mrs. Nick.....820 Highland St.
Elledge, Mrs. Ray.....6415 Forest Ave.
Fedor, Mrs. T. A.....6716 Magoun
Fischer, Mrs. Burnell.....49 Indi-Illi Park
Gevirtz, Mrs. Milton B.....7142 Hohman Ave.
Hack, Mrs. Edmund C.....7147 Olcott St.
Hickman, Mrs. A. Lee, Jr.....7412 Knickerbocker
Howard, Mrs. Wm. H.....41 Glendale Pk.
Husted, Mrs. Robert G.....7248 Forest Ave.
Jones, Mrs. E. S.....50 Kenwood St.
Komoroske, Mrs. John E.....35 Highland Ave.
Koransky, Mrs. David S.....7048 Forest Ave.
Kretsch, Mrs. Russell W.....7214 Hohman Ave.

Marks, Mrs. Ora L.....7111 Olcott Ave.
Mason, Mrs. Richard L.....132 Rimbach Ave.
Modjeski, Mrs. Joseph R.
7327 Knickerbocker Pkwy.
Neal, Mrs. L. W.....7301 Forest Ave.
Panares, Mrs. Solomon V.....4-172nd Place
Peck, Mrs. Edward A.....6422 Moraine Ave.
Pilot, Mrs. Jean.....7137 Knickerbocker Pkwy.
Polite, Mrs. Nicholas L.....650 Roosevelt
Premuda, Mrs. Franklin F.....7042 Woodmor
Remich, Mrs. Antone C.....6412 Moraine Ave.
Rendel, Mrs. Donald T.....18 172nd Pl.
Rebay, Mrs. A. W.....7505 Knickerbocker Pkwy.
Rhind, Mrs. A. W.....7126 Forest Ave.
Rosevere, Mrs. Herry J.....6531 Forest Ave.
Row, Mrs. Perry Quentin,.....6706 Hohman Ave.
Rubright, Mrs. Robert L.....7248 Forest Ave.
Rudolph, Mrs. F. G.....6607 Forest Ave.
Santare, Mrs. Vincent J.....6508 Forest Ave.
Schlissenger, Mrs. Jacob.....7648 Hohman Ave.
Stern, Mrs. S. Lewis.....226 Oakwood
Teegarden, Mrs. Joseph A., Jr.
7204 Woodman Ave.
Thegze, Mrs. George A.....7435 Olcott Ave.
Trachtenberg, Mrs. Lee.....7226 Tilly Dr.
Wong, Mrs. Samuel N.....632 169th St.

Hobart

Bernard, Mrs. Marvin R.....651 Waters
Faulkner, Mrs. Donald.....295 S. Wisconsin
Kellar, Mrs. Philip E.....1331 Lincoln St.
Pike, Mrs. Warren, Jr.....Ainsworth Rd.

Dimitroff, Mrs. Lambro
849 Wentworth Ave., Calumet City, Ill.
Mansueto, Mrs. Mario D.
4 Forestdale, Calumet City, Ill.
Sroka, Mrs. A. G.....17216 Wentworth Ave.,
Lansing, Ill.
Stasick, Mrs. Murray..228 W. Warren, Lansing, Ill.
Portney, Mrs. Fred.....15520 Dante, Dolton, Ill.
Markey, Mrs. R. J.
Rosedale Terrace, Lincolnshire, Crete, Ill.

Highland

Beilke, Mrs. G. A.....8723 Parkway Dr.
Larrabee, Mrs. James.....2214 Oakedale
Tilka, Mrs. Ed. C.....8740 Parkway
White, Mrs. G. H., Jr.....8754 Parkway Dr.

Munster

Arbeiter, Mrs. Herbert I.....119 Beverly Place
Arrowsmith, Mrs. James L.....8138 Forest Ave.
Benchik, Mrs. Frank A.....8326 Hawthorne Dr.
Boys, Mrs. F. F.....8517 Crestwood Ave.
Chael, Mrs. Tom C.....225 Belmont Place
Costello, Mrs. Albert J.....1404 Fisher
Egnatz, Mrs. Charles D.....223 Terrace Dr.
Espino, Mrs. J. C.....8523 Forest Ave.
Gardiner, Mrs. H. Glen.....1406 McArthur
Kenney, Mrs. Francis.....8131 Forest Ave.
Kuhn, Mrs. Arthur J.....1535 35th St.
Lanman, Mrs. John U.....1448 MacArthur Blvd.
Lautz, Mrs. Herbert A.....7943 Forest Ave.
Long, Mrs. Keith J.....1327 Ridgeway
Madlang, Mrs. R. M.....7750 Hohman
Marks, Mrs. Salvo P.....8320 Parkview Ave.
Mason, Mrs. John C.....7939 Jackson
McLean, Mrs. James S.....1836 Ridge Rd.
Modjeski, Mrs. Raymond J.....1448 Elliott Dr.
Montes, Mrs. H.....7915 Hohman Ave.
Paul, Mrs. Eudell G.....7905 Hohman
Rasch, Mrs. George C.....1519 35th St.
Rosenthal, Mrs. Carl.....8330 Schrieber Dr.
Schlesinger, Mrs. Daniel J...1506 MacArthur Blvd.
Shapiro, Mrs. Seymour W.....1517 Melbrook
Smith, Mrs. Jerald.....303 Fairbanks
Sroka, Mrs. Stanley J.....7540 Forest Ave.
Stevens, Mrs. Edwin W.....8627 Beech
Sweany, Mrs. S.....8030 Jackson
Teplinsky, Mrs. L. L.....1528 Twelve Oaks Dr.
Westhaysen, Mrs. Peter V.....127 Beverly Pl.
Wooden, Mrs. Thomas F.....8351 Crestwood

Whiting

Angel, Mrs. Virgil.....2125 Indianapolis Blvd.
Greisen, Mrs. J. C.....1709 Stanton Ave.
Weinberg, Mrs. B. A.....2022 Lake Ave.

LaPORTE COUNTY

Michigan City

Armstrong, Mrs. Thomas D.....215 E. Coolspring
Bankoff, Mrs. Milton L.....307 Kenwood
Berkson, Mrs. Myron.....3127 Cleveland Ave.
Cleveland, Mrs. John B...Mounted Route 5, Box 68
Fargher, Mrs. Francis M.....Pottawattamie Pk.
Frost, Mrs. Robert.....405 Wilshire Ave.
Gardner, Mrs. Melvin D.....1520 E. 8th St.
Gardner, Mrs. Russell.....2901 Oriole Trail L. B.
Given, Mrs. Everett H....2803 Lake Shore Dr. LB.
Hay, Mrs. Gene R.....106 Belmont Ct.
Jones, Mrs. King S.....1010 E. Coolspring
Kemp, Mrs. John T.....631 Pine St.
Kubik, Mrs. Francis.....Pottawattamie Pk.
Liddell, Mrs. Chas. K.....3007 Mayfield Way LB
Mannion, Mrs. Rodney.....2002 Oriole Trail LB
Harske, Mrs. Robert.....112½ Buffalo St.
McGue, Mrs. Frank J.....Indiana State Prison
Milne, Mrs. Walter S.....2602 Lake Shore Dr. LB
Olsen, Mrs. William H.....509 Willard
Phillips, Mrs. John H.....Duneland Beach
Taub, Mrs. Robert G.....113 Valentine Court
Tunnell, Mrs. Harry D.....418 Spring St.
Walters, Mrs. Wm. H.....2724 Lake Shore Dr. LB

LaPorte

Backer, Mrs. George P.....1533 Michigan Ave.
Carpentier, Mrs. James R.....110 W. 15th St.
Carter, Mrs. Fred Stuart.....208 Forest Dr.
Datzman, Mrs. Basil J.....1421 Indiana Ave.
Durham, Mrs. Lowell J.....1808 Indiana Ave.
Elshout, Mrs. Clement H.....1311 Michigan Ave.
Erwin, Mrs. Winford R.....505 Third St.
Fargher, Mrs. Robert A.....436 Lake Shore Dr.
Kelsey, Mrs. Robert M., Jr.....1305 Indiana
Feinn, Mrs. Harry S.....1534 Michigan Ave.
Kelsey, Mrs. Robert M., Sr.....702 Maple Ave.
Kepler, Mrs. Robert W.....1529 Michigan Ave.
Larson, Mrs. Goyt O.....Ridgefield Addition
Mead, Mrs. Frank E.....344 Grayson Rd.
Moosey, Mrs. Louis.....2007 Michigan Ave.
Mueller, Mrs. Edwin C.....117 Evergreen Dr.
Muhleman, Mrs. Charles E.....Greenacres
Oak, Mrs. David D.....1104 Andrew Ave.
Philbrook, Mrs. Seth S.....212 Forest Dr.
Richter, Mrs. John C.....2020 Beechwood Ct.
Scott, Mrs. John S.....508 Lake Shore Dr.
Tabaka, Mrs. Francis B.....1537 Michigan Ave.
von Asher, Mrs. George.....2030 Michigan Ave.
Wolf, Mrs. William E.....370 Oak Dr.

Westville

Dieter, Mrs. William J...Beatty Memorial Hospital
Hetman, Mrs. Mitchell S.....Westville
Johnston, Mrs. Donald D...Beatty Memorial Hosp.
Matthew, Mrs. John R.....P. O. Box 473
Meyer, Mrs. Hans.....P. O. Box 473
Sennett, Mrs. Cecil M.....P. O. Box 473
Wygant, Mrs. Marion D.....P. O. Box 473
Oster, Mrs. Jack H.....P. O. Box 473
Carter, Mrs. William D.....Walkerton
Rohrer, Mrs. Bryce B.....Walkerton

LAWRENCE COUNTY

Bedford

Allen, Mrs. L. Howard.....1318 14th St.
Austin, Mrs. Richard P.....1315 15th St.
Campbell, Mrs. William T.....348 Eastwood Dr.
Duncan, Mrs. Raymond E.....407 Northwood Dr.
Dusard, Mrs. Joseph C.....1107 N St.
Edmonds, Mrs. Kendrick T.....1303 15th St.
Emery, Mrs. Charles B.....Brook Knoll
Fountaine, Mrs. Thomas J.....1620 18th St.
Hammel, Mrs. Howard T.....1822 15th St.
Hawkins, Mrs. Richard D.....1308 15th St.
Kastings, Mrs. Gerald E.....Parkview Addition
Kerr, Mrs. Donald M.....1415 20th St.
Morrow, Mrs. Robert J.....501 Southwood St.
Noe, Mrs. William R.....118 Woodhill Dr.
Scherschel, Mrs. John P.....1713 H St.
Waldo, Mrs. Guy Harold Jr.....308 Eastwood Dr.
Wohlfeld, Mrs. J. B.....1224 15th St.
Woolery, Mrs. Richard R.....2020 Denson Ave.
Wynne, Mrs. R. E.....1601 16th St.

Hamilton, Mrs. James.....703 Oak St., Mitchell
Oswalt, Mrs. James.....901 Curry St., Mitchell

MADISON COUNTY

Owens, Mrs. T. F.....302 Lincoln Ave., Alexandria

Anderson

Aagesen, Mrs. W. J.....3 Wind Ridge
Armington, Mrs. Charles L.....823 W. 7th Street
Armington, Mrs. John C.....206 W. 14th St.
Austin, Mrs. Charles E.....1612 Westwood Dr.
Beeler, Mrs. Frank K.....20 Overlook Dr.
Bixler, Mrs. Donald P.....1515 Green Way Dr.
Blassaras, Mrs. Crist A.....916 Dresser Dr.
Bowers, Mrs. Richard C.....3508 Dogwood Dr.
Bridges, Mrs. Alvin L.....R. R. 2, Box 296 a
Brown, Mrs. James M.....909 Forest Dr.
Buckles, Mrs. David L.....44 Knoll Rd.
Conrad, Mrs. Ernest M.....2124 Meridian St.
Doenges, Mrs. James L.....1601 Van Buskirk Rd.
Donaldson, Mrs. Frank C.....2 Wind Ridge Rd.
Drake, Mrs. James R.....2029 W. 12th St.
Drake, Mrs. John C.....920 N. Madison Ave.
Dulin, Mrs. Basil B.....1120 Maryland Drive
Ellis, Mrs. Seth W.....1105 Green Way Dr.
Elsten, Mrs. Wayne A.
1333 Maryland Dr., Forest Manor
Erehart, Mrs. Archie D.....1221 Irving Way
Faust, Mrs. Howard Jr.....1321 W. 8th St.
Ferguson, Mrs. Donald H.....3430 Redwood Rd.
Jones, Mrs. Albert T.....3316 Cherry Rd.
Jones, Mrs. David G.....126 W. 12th St.
Kelly, Mrs. Wendell C.....23 Colony Rd.
Kopp, Mrs. O. A.....1807 E. 10th St.
Kopp, Mrs. William R.....1200 Arrow Ave.
Lamey, Mrs. Paul T.....1740 W. 10th St.
Larmore, Mrs. Joseph L.....1301 Winding Way
Litzenberger, Mrs. Sam W.....837 Forrest Dr.
Metcalf, Mrs. George B.....830 W. Eighth St.
Moneyhun, Mrs. James E.....1815 Ivy Dr.
Neale, Mrs. Alfred E.....725 Forest Dr.
Nesbitt, Mrs. Leonard L.....60 River Forest
Patterson, Mrs. William K.....3 South Park Dr.
Polhemus, Mrs. Warren C.....1800 W. 11th St.
Rosenbaum, Mrs. Lloyd E.....804 Dresser Dr.
Ross, Mrs. Guy E.....1124 N. Madison Ave.
Sharp, Mrs. William L.....725 North Shore Blvd.
Sheldon, Mrs. Suel A.....2812 Greenbriar Rd.
Stamper, Mrs. Robert J.....3104 Sherman St.
Starks, Mrs. William O.....2536 W. 12th St.
Stinson, Mrs. William M.....17 River Forest
Swan, Mrs. Richard C.....707 Forrest Dr.
Wagoner, Mrs. John R.....3522 Hawthorne Rd.
Weiss, Mrs. Louis L.....1225 N. Madison Ave.
Webb, Mrs. Harry D.....1308 Maryland Dr.
Williams, Mrs. Robert H.....715 North Shore Blvd.
Wilkinson, Mrs. Roger L.....1525 Winding Way

Ayres, Mrs. Kenneth D.....R. R. 1, Markleville
Williams, Mrs. Robert D.....Markleville
Van Ness, Mrs. William..216 S. Main, Summitville
Bishop, Mrs. Harry A.....Frankton

MARION COUNTY

Dill, Mrs. Charles W.
4111 S. Sherman Drive, Beech Grove
Ramage, Mrs. Walter F...244 S. First, Beech Grove

Indianapolis

A

Albertson, Mrs. Frank P...5031 Rockville Rd. (28)
Aldrich, Mrs. Harry D.....5805 Sherman Dr. (20)
Alig, Mrs. Vincent B. .....6453 Green Leaves (20)
Allen, Mrs. Robert K.....737 Sherwood Dr. (20)
Alvis, Mrs. Edmond O.....474 W. 92nd St. (8)
Anshutz, Mrs. E. M.....5429 N. Sadlier Dr. (26)
Antreasian, Mrs. Berj.....5465 Mark Lane (26)
Appel, Mrs. Richard H.....122 E. 61st St. (20)
Arbuckle, Mrs. William E.
5326 E. St. Joseph St. (19)
Arnold, Mrs. Robert D.
6450 Around the Hills Road (26)
Aust, Mrs. Charles H....1119 N. Linwood Ave. (1)
Avery, Mrs. George O.
5321 N. Kessler Blvd. N.D. (8)

B

Bachmann, Mrs. Arnold J.....1615 Oles Drive (8)
Bakemeier, Mrs. Otto H...5535 E. St. Clair St. (19)
Bakemeier, Mrs. Robert E.
1210 N. Butler Ave. (19)
Balch, Mrs. James E.....4444 College Ave. (5)
Ball, Mrs. Joseph E.....6612 E. Ninth St. (19)
Banks, Mrs. Horace M.
3631 Forest Manor Ave. (18)
Baptisti, Mrs. Arthur, Jr...4401 N. Meridian St. (8)
Bartley, Mrs. Max D.
5640 N. Pennsylvania St. (20)
Batman, Mrs. Gordon W..6906 N. Delaware St. (20)
Battersby, Mrs. Stanley....6001 Sunset Lane (20)
Bauer, Mrs. Thomas.....7685 Clarendon Rd. (60)
Baumeister, Mrs. Herbert E.....4421 E. 75th (20)
Beach, Mrs. Robert R.....5810 E. Pleasant Run
Pkwy., N. Dr. (19)
Beamer, Mrs. Parker R...4620 Boulevard Place (8)
Beasley, Mrs. Thos. J.....715 E. 70th Place (20)
Beaver, Mrs. Howard W.
303 E. Edgewood Ave. (27)
Beck, Mrs. Evart M.....6445 N. Olney St. (20)
Becker, Mrs. Harry G...5641 Haverford Ave. (20)
Beeler, Mrs. John W.....7974 N. Illinois St. (20)
Belt, Mrs. James H.....8271 Forest Lane (20)
Benedict, Mrs. Paul F.....2550 Blue Grass Dr. (8)
Bennett, Mrs. Ivan F.....R. R. 18, Box 285 (24)
Berman, Mrs. J. K.....2810 W. 38th St. (8)
Bibler, Mrs. Lester D..4360 N. Pennsylvania St. (5)
Bill, Mrs. Robert O.
8750 Washington Blvd., W. Dr. (20)
Blackwell, Mrs. Donald S. ..2121 Allison Ave. (24)
Blake, Mrs. Albert L.....6471 Knyghton Rd. (20)
Blatt, Mrs. A. Ebner.....5330 N. Illinois St. (8)
Boling, Mrs. Grover C., Jr.
6205 Bramshaw Rd. (20)
Bomalaski, Mrs. Donald
3839 Forest Grove Dr. B-4 (5)
Borman, Mrs. George W.
5634 Carrollton Ave. (20)
Boyer, Mrs. Floyd A.....136 S. Wittfield St. (19)
Brady, Mrs. Thomas A., Jr.
225 Wellington Rd. (20)
Brayton, Mrs. John R.
3128 E. Fall Creek Blvd., N. Dr. (5)

Brayton, Mrs. Lee.....5540 N. Illinois St. (8)
Brickley, Mrs. Richard A.
5954 Hillside, W. Dr. (20)
Brillhart, Mrs. James R.....5731 Kilmer Lane (20)
Brodie, Mrs. Donald W.....R. R. 13, Box 397 (26)
Brown, Mrs. Archie E.
4145 Melbourne Rd., W. Dr. (8)
Brown, Mrs. DeWitt W., Jr.
4363 Cold Springs Rd. (8)
Brown, Mrs. Gordon T..3325 Breckenridge Dr. (8)
Brown, Mrs. Thomas C., Jr.
8780 Driftwood Dr. (20)
Brown, Mrs. Wendell E.....3750 N. Gale St. (18)
Browning, Mrs. James S.
6339 N. Keystone Ave. (20)
Burdette, Mrs. Harold.....6310 Glencoe Dr. (20)
Butler, Mrs. Robert M....4849 N. Ritter Ave. (26)

C

Cahn, Mrs. Hugo.....5535 N. Penn. (5)
Call, Mrs. Herbert F.....710 E. 57th St. (20)
Campbell, Mrs. E.....5739 Haverford (20)
Campbell, Mrs. John A.....5201 Grandview Dr. (8)
Campbell, Mrs. Robert L..5726 Sherman Ave. (20)
Carson, Mrs. E. Wayne..7177 N. Meridian St. (20)
Carter, Mrs. Oren E.....5461 Kenwood Ave. (8)
Chattin, Mrs. William R...4209 Roselawn Dr. (18)
Chernish, Mrs. Stanley M....4403 Radnor Rd. (26)
Chroniak, Mrs. Walter
5916 E. Pleasant Run Pkwy., N. Dr. (19)
Clark, Mrs. Geo. A.....1046 Bristol Rd. (20)
Clark, Mrs. Lawson J.
2425 E. Kessler Blvd., E. Dr. (20)
Coddington, Mrs. Robert C.
2261 N. Centennial (22)
Coggeshall, Mrs. Warren E.
6305 Bramshaw Rd. (26)
Cohn, Mrs. Alvin F.....1120 Southview Dr. (27)
Conway, Mrs. Glenn.....2235 E. Garfield Dr. (3)
Cortese, Mrs. James V.....6302 Minlo Dr. (27)
Cortese, Mrs. Thomas A.....3240 Brill Rd. (27)
Countryman, Mrs. Frank...5633 Central Ave. (20)
Cox, Mrs. C. E.....1950 W. 71st St. (8)
Crawford, Mrs. John A..3848 Washington Blvd. (5)
Cross, Mrs. David G.....3001 Redfern Dr. (27)
Culbertson, Mrs. Clyde G.....6060 Park Ave. (20)
Currie, Mrs. Robert W.....512 E. 57th St. (20)
Curry, Mrs. R. Louis.....7250 N. Chester (20)

D

Daley, Mrs Edward H.
5118 East Dickson Road (26)
Dallas, Mrs. F. R.....7935 E. Michigan (19)
Daly, Mrs. Joseph M.....5969 Singleton Ave. (27)
Davis, Mrs. Sam J.....4545 Broadway (5)
Dearmin, Mrs. Robert M..5147 N. Delaware St. (5)
DeArmond, Mrs. Albert M.
5401 N. Delaware St. (20)
Deever, Mrs. John W.....6801 S. East St. (27)
Dennison, Mrs. Alfred ..7910 Wincombe Blvd. (20)
Denny, Mrs. James W.
6633 Spring Brook, N. Dr. (19)
Donato, Mrs. Albert M....5915 Lawrence Dr. (26)
Doran, Mrs. J. Hal.....3733 N. Denny St. (18)
Dorman, Mrs. W. Leland
6631 Spring Brook, N. Dr. (19)
Doughty, Mrs. Samuel R., Jr.
5817 N. Dearborn St. (20)
Drew, Mrs. Arthur L., Jr.
4349 Washington Blvd. (5)
Dryden, Mrs. Gale E.....5835 N. Tacoma Ave (20)
Dugan, Mrs. William M
5747 Rolling Ridge Rd. (20)
Dupes, Mrs. Lowell E.....5851 White Oak Ct. (20)
Dyar, Mrs. Edwin W., Jr.
5910 Washington Blvd. (20)
Dyke, Mrs. Richard W.....542 W. 83rd (8)
Dyken, Mrs. Mark L. .....6101 N. Delaware (20)

E

Eastman, Mrs. Joseph Rilus...220 W. 64th St. (8)
Eaton, Mrs. Edwin R.....5750 Allisonville Rd. (20)
Eaton, Mrs. Lyman D.....R. R. 19, Box 487Y (20)
Ebert, Mrs. J. Wayne....1125 Southview Dr. (27)
Egbert, Mrs. Herbert L.....419 W. 63rd St. (8)
Eicher, Mrs. Palmer O..4401 Washington Blvd. (5)
Eldridge, Mrs. Gail E.....5746 Central Ave. (20)
Elkins, Mrs. James P.....2045 Lick Creek Dr. (3)
Ellis, Mrs. Bert E..2595 N. Girls School Rd. (24)
Ellis, Mrs. William N.....4908 E. 46th Street (26)
Emhardt, Mrs. John T.....3305 Brill Rd. (27)
Ensminger, Mrs. Leonard A.
1321 N. Meridian St. (2)
Evans, Mrs. Paul V.....7415 Dean Rd. (20)
Everly, Mrs. Ralph V.....1105 E. 58th St (20)

F

Fausset, Mrs. C. Basil...7757 N. Meridian St. (20)
Ferry, Mrs. Francis A.....935 Southern Ave. (3)
Finneran, Mrs. Joseph C..3819 N. Delaware St. (5)
Fischer, Mrs. A. Alan.....3230 W. 41st St. (8)
Flanagan, Mrs. Paul M. ....5842 N. LaSalle (20)
Flanders, Mrs. Robert, Jr...5930 N. Olney St. (20)
Flanigan, Mrs. Meredith B...3305 Rutledge Dr. (8)
Flora, Mrs. Joseph O.....5604 Rockville Rd. (24)
Folkening, Mrs. Norval C.....5501 Camden (27)
Forbes, Mrs. Robert S.
4110 Crooked Creek Overlook (8)
Fortuna, Mrs. Frank.....2535 E. Banta Rd. (27)
Foster, Mrs. Lee N., Jr...3824 Ashbourne Ln. (18)
Fouts, Mrs. Paul J.....8393 N. Illinois St. (20)
Funkhouse, Mrs. A. G.....215 E. 36th (5)
Franklin, Mrs. William L.....33 E. 37th St.
Freeman, Mrs. Leslie W.....5461 Julian Ave. (19)
Freeman, Mrs. Max E....4802 Thornleigh Dr. (26)
Fry, Mrs. Robert D.....5717 Broadway (20)

G

Gaddy, Mrs. Nelson D.....2551 Blue Grass Ct. (8)
Garber, Mrs. J. Neill..7036 N. Pennsylvania St. (20)
Garceau, Mrs. George J.
5539 N. Pennsylvania St. (20)
Gardiner, Mrs. Sprague H.....330 W. 62nd St. (8)
Gardner, Mrs. Austin.....7701 N. Penn. (40)
Gardner, Mrs. Buchman.....22 E. 52nd St. (5)
Garner, Mrs. W. Stanley..4021 Cranbrook Dr. (20)
Garrett, Mrs. Robert A.....95 Wellington Rd. (8)
Gastineau, Mrs. Frank M.
4444 Kessler Blvd., E. Dr. (20)
Geider, Mrs. Roy A.
5816 Pleasant Run Pkwy., N. Dr. (19)
Gick, Mrs. Herman H.....451 Eastern Ave. (1)
Gifford, Mrs. Fred E.....5125 N. Meridian St. (8)
Gillespie, Mrs. Charles F...4530 Berkshire Rd. (18)
Gillespie, Mrs. Jacob E.....4426 Broadway (5)
Ginsbery, Mrs. S. T.....7222 Stevens Lane (20)
Goldman, Mrs. Samuel....428 Woodmere Dr. (20)
Gormley, Mrs. Joseph J....4402 Thrush Drive (24)
Graham, Mrs. John D.....6401 Osborn Dr. (26)
Grayson, Mrs. Ted....925 Forest Blvd. N. Dr. (20)
Greene, Mrs. Morgan E...3029 E. Hanna Ave. (27)
Greist, Mrs. John H.....4343 Washington Blvd. (5)
Griffin, Mrs. Leslie.....3203 W. 57th St.
Griffith, Mrs. Richard S.
2002 Cunningham Road (24)
Grisell, Mrs. Ted L.....5411 Broadway (20)
Gruber, Mrs. Charles M., Jr.
3102 Kessler Blvd., E. Dr. (20)
Gustafson, Mrs. Gerald W.
5768 N. Pennsylvania St. (20)

H

Habegger, Mrs. E. Dale.....3120 W. 51st St. (8)
Hadley, Mrs. David..5601 N. Pennsylvania St. (20)
Haggard, Mrs. Edmund B.
5914 N. Emerson Ave. (20)

Hall, Mrs. Frank M..8633 N. Pennsylvania St. (20)
Hall, Mrs. Jack H.....6241 E. 43rd St. (26)
Hamilton, Mrs. H...3425 Green Hills Overlook (22)
Hampshire, Mrs. Donald R.
7979 Morningside Dr. (20)
Hanna, Mrs. Thomas A.....5009 W. 15th St. (24)
Harcourt, Mrs. Allan K...5418 Allisonville Rd. (8)
Harding, Mrs. M. Richard..4220 DeVon Court (18)
Harger, Mrs. Robert W...46 West 52nd Street (8)
Harold, Mrs. Norris E.....3545 N. Denny St. (18)
Harvey, Mrs. Verne K., Sr.
2601 Cold Springs Rd. (22)
Haslinger, Mrs. Clarence J..5236 Boulevard Pl. (8)
Hatfield, Mrs. Nicholas W.....5851 E. 54th Pl. (5)
Hawk, Mrs. James H.....4485 N. Pennsylvania (5)
Haymond, Mrs. Joseph L.
2745 Crescent Hill Lane (8)
Haynes, Mrs. John Thomas..4616 Cherry Lane (8)
Hays, Mrs. Everett L.....2607 Manker Ave. (3)
Healey, Mrs. Robert J..5559 Washington Blvd. (20)
Heimburger, Mrs. Robert F...4462 Central Ave. (5)
Helmer, Mrs. O. M.....5015 N. Illinois St. (8)
Hendricks, Mrs. Fred A...5867 N. New Jersey (20)
Hepburn, Mrs. Charles K.
7570 Morningside Dr. (20)
Heubi, Mrs. John E.....6904 N. Park Ave. (20)
Hickman, Mrs. Jack W.
4134 Sun Meadow Lane (8)
Hickman, Mrs. Walter F.....5859 Gladden Dr. (20)
Hicks, Mrs. Merwyn L.....5212 Channing Rd. (20)
Hill, Mrs. James K.....2707 Bluffwood Dr. (8)
Hilldrup, Mrs. Don G.....5672 N. Illinois St. (8)
Hogan, Mrs. Michael A.
2004 Green Rock Lane (3)
Holman, Mrs. Jerome E., Jr.....5930 Central Ave.
Hood, Mrs. Ainslee A....1810 Rosedale Drive (27)
Howell, Mrs. Joseph D.....4514 E. 79th St. (20)
Howell, Mrs. Robert D.
6941 Washington Blvd. (20)
Hoyt, Mrs. Millard L. ...5725 Hunterglen Rd. (20)
Huddle, Mrs. John E.
4738 N. Pennsylvania St. (5)
Hudson, Mrs. Foster J. .....3865 Cheviot Pl. (18)
Hull, Mrs. Ronald H.....6465 Dover Rd. (20)
Hurteau, Mrs. William W...201 West 75th St. (20)
Huse, Mrs. Wm. Murray
5131 N. Pennsylvania St. (5)

I-J

Irvine, Mrs. William O. .....2609 W. 62nd St. (68)
Irwin, Mrs. Glenn W., Jr...8025 N. Illinois St. (20)
Iske, Mrs. Paul G.....5207 Central (20)
Jaquith, Mrs. Orville S.....261 Blue Ridge Rd. (8)
Jenkins, Mrs. Robert.....36 E. 57th St. (20)
Jennings, Mrs. Frank L.
2601 Cold Springs Rd. (22)
Jewett, Mrs. Joe H.....5803 Sherman Ave. (20)
Jinks, Mrs. Clifford H.....1831 E. 61st St. (20)
Johnson, Mrs. Thomas W.
5735 Washington Blvd. (20)
Jones, Mrs. Allen W.
6420 Around the Hills Rd. (26)
Jones, Mrs. David E.....5433 Hawthorne Dr. (26)
Joseph, Mrs. Rex M.....620 Hickory Lane (27)
Jowitt, Mrs. Richard H.
5390 Brendonridge Rd. (26)
Judson, Mrs. Walter E.....844 Fleetwood Dr. (8)

K

Kammen, Mrs. Leo.....7030 Central Ave. (20)
Karsell, Mrs. Wm. A.....5310 Staughton Dr. (26)
Katterjohn, Mrs. James C...9035 Pickwick Dr. (20)
Keenan, Mrs. George..2015 E. Thompson Rd. (27)
Keenan, Mrs. Reid L.....3702 N. Delaware St. (5)
Keever, Mrs. Charles H., Sr.
9016 Keever Dr., R. R. 18, Box 289B (24)
Keiser, Mrs. Venice D.....5709 Broadway (20)
Kelly, Mrs. Walter F.
6845 E. Pleasant Run Pkwy., S. Dr. (19)
Kennedy, Mrs. Hunter F...757 N. Bolton Ave. (19)
Kennedy, Mrs. Joseph T.
5316 Brendonridge Rd. (26)
Kenney, Mrs. David B.....6711 E. Tenth St. (19)
Kenzler, Mrs. Jack I....4140 Flamingo, E. Dr. (26)
Kerr, Mrs. Harry R...5774 Washington Blvd. (20)
King, Mrs. Harold K...4606 Washington Blvd. (5)
Kingsbury, Mrs. John K..5776 E. Michigan St. (19)
Kirtley, Mrs. William R....7447 N. Park Ave. (20)
Kiser, Mrs. Edgar F.....5610 Central Ave. (20)
Kissel, Mrs. Wesley A.....2368 N. Auburn (24)
Kitterman, Mrs. Harry E.....5108 Graceland (8)
Klain, Mrs. Benjamin V.
8419 N. Pennsylvania St. (20)
Kneidel, Mrs. John .....918 E. 57th St. (20)
Knowles, Mrs. Charles Y...4340 Glencairn Ln. (18)
Kohlstaedt, Mrs. Kenneth G....645 E. 80th St. (20)
Kooiker, Mrs. John E.....3540 Watson Road (5)
Koons, Mrs. Karl M..5767 N. Pennsylvania St. (20)
Kornafel, Mrs. Laddie H....6201 College Ave. (20)
Kuntz, Mrs. Herman W.
2065 Lick Creek Drive (3)
Kwitney, Mrs. I. J....5774 Broadway Terrace (20)

L

LaDine, Mrs. Clarence B.....5417 N. Meridian (8)
Lamb, Mrs. Emmett B....1180 Golden Hill Dr. (8)
Lamb, Mrs. Russell W....4636 N. Capitol Ave. (8)
Lamber, Mrs. Chet ..6107 N. Meridian, W. Dr. (20)
Lang, Mrs. Erich K.....2045 W. 56th St. (8)
Leasure, Mrs. J. Kent.....3060 N. Meridian (8)
Leff, Mrs. Abe H.....160 Pennridge Dr.
Leffler, William T.....250 E. 70th St. (20)
LeMaster, Mrs. Theodore R.
2621 McLeay Dr. (20)
Levi, Mrs. Leon.....6902 N. Pennsylvania St. (20)
Lewis, Mrs. Robert J.....5800 Lawrence Dr. (26)
Lichtenberg, Mrs. Melvin
5677 N. Meridian St. (8)
Lindenborg, Mrs. Paul G.....4304 E. 46th St. (26)
Lingeman, Mrs. Raleigh E.
3845 N. Meridian St. (8)
Lochry, Mrs. Ralph L. ...3134 Norwaldo Ave. (20)
Loehr, Mrs. Wm. M.....1426 E. Kessler Blvd. (20)
Lord, Mrs. Glenn C.....7437 Holliday Dr. W (5)
Louden, Mrs. Robert W.....1510 Marion Dr. (20)
Loughlin, Mrs. Leo..5410 N. Pennsylvania St. (20)
Love, Mrs. George N..5331 Washington Blvd. (20)
Lozow, Mrs. David.....5545 N. Meridian (26)
Lukemeyer, Mrs. George T.
3845 N. Campbell Ave. (26)
Lunsford, Mrs. Thomas E.....4714 W. 30th (24)
Lurie, Mrs. Paul R.....5 W. 79th St. (20)
Luros, Mrs. J. Theodore.....156 Fairway Dr. (20)
Lybrook, Mrs. William B.
4585 Kessler Blvd., E. Dr. (20)

M

McBride, Mrs. James .....720 E. 80th (20)
McCartney, Mrs. Donald H...410 East 56th St. (20)
McClain, Mrs. Edwin S.
550 W. 77th St., N. Dr. (20)
McCormick, Mrs. Charles O., Jr.
4240 Glencairn Lane (18)
McGrath, Mrs. Michael F.
6183 Washington Blvd. (20)
McGuff, Mrs. Paul E.....3660 Central Ave. (5)
McQuiston, Mrs. Ralph J...6120 Lawrence Dr. (26)
McTurnan, Mrs. Robert W...6967 Central Ave. (20)
Mackey, Mrs. John E.....940 W. 58th St. (8)
MacCollum, Mrs. Spears.....931 Bristol Rd. (80)
Madden, Mrs. Robert J. ....1420 Audubon Rd. (19)
Malcolm, Mrs. R. L., Jr.....R. R. 17, Box 580B
Manders, Mrs. Karl L.....215 E. 71st Street (20)
Manion, Mrs. Marlow W.
5132 N. New Jersey St. (5)
Manning, Mrs. Randolph
5302 N. Delaware St. (20)

Manzie, Mrs. Michael.....2687 W. 44th St. (5)
Marks, Mrs. Maurice I.....152 Fairway Dr. (20)
Marshall, Mrs. Albert L., Jr.
7802 Allisonville Rd. (20)
Marshall, Mrs. Cavins R...4162 N. Meridian St. (8)
Martin, Mrs. Loren H..5338 Washington Blvd. (20)
Martz, Mrs. Carl D.....7926 Hawthorn Ct. (26)
Masters, Mrs. John M.....34 E. 46th St. (5)
Masters, Mrs. Robert.....330 W. 106th (90)
Matthew, Mrs. W. Burleigh
800 W. Kessler Blvd. (5)
Matthews, Mrs. William M.
1122 N. Bolton Ave. (19)
Maxam, Mrs. Beverly T.....6220 Sunset Lane (24)
Mealey, Mrs. John.....4030 Roland Rd. (8)
Megenhardt, Mrs. Dennis S.
3038 E. Fall Creek Blvd. (8)
Meiks, Mrs. Lyman T.
4203 N. Pennsylvania St. (5)
Melin, Mrs. John R.....4904 Olympia Dr. (8)
Mericle, Mrs. Earl W. 8455 Washington Blvd. (40)
Merrell, Mrs. Paul.....5367 Kenwood (8)
Mertz, Mrs. John H. O.....6950 Central Ave. (20)
Michael, Mrs. Isaac E...3366 N. Kessler Blvd. (22)
Miller, Mrs. Jack M.....3336 Melbourne Rd. (8)
Miller, Mrs. Jerry.....7237 Sylvan Ridge Rd. (20)
Miller, Mrs. John D.....6255 Sunnyside Rd. (26)
Miller, Mrs. Roscoe E.....R. R. #17, Box 503 (23)
Mitchell, Mrs. Earl N..1222 N. Irvington Ave. (19)
Moak, Mrs. Glenn D.....2420 Weslynn Dr. (8)
Moenning, Mrs. John E.....1905 N. King (22)
Molt, Mrs. William F.....4618 N. Lesley Ave. (26)
Montgomery, Mrs. W. Foster...4546 Park Ave. (5)
Montgomery, Mrs. Ralph F...3531 N. Norfolk (24)
Moore, Mrs. Donald F...1315 West 10th Street (7)
Moore, Mrs. Harold T....5802 Allisonville Rd. (20)
Morchan, Mrs. Samuel.....7007 Broadway (20)
Moriarity, Mrs. John.....6130 Smock Dr. (27)
Morrison, Mrs. Lewis E., II....4450 Park Ave. (5)
Morton, Mrs. Joseph L.....3222 W. 42nd St. (8)
Morton, Mrs. Walter P.
3434 E. Fall Creek Blvd., N. Dr. (5)
Moss, Mrs. H. C.....410 E. 47th St.
Mothersill, Mrs. Mark H.....3650 College Ave. (5)
Mouser, Mrs. Robert W.
5555 N. Meridian St. (20)
Muller, Mrs. Lullus P..5675 Washington Blvd. (20)
Myers, Mrs. Roy V.....4450 E. Kessler Blvd. (20)

N

Nagan, Mrs. Robert F.....3902 Devon Dr. (18)
Nay, Mrs. Richard M.....5525 N. Meridian (8)
Need, Mrs. Louis T.....3627 Bluff Rd. (27)
Nester, Miss Lena Laura
5324 N. Pennsylvania St. (20)
Nie, Mrs. Louis W.....4305 Central Ave. (5)
Nohl, Mrs. John M.....5410 Eastridge Dr. (19)
Nolting, Mrs. Henry F....155 W. Hampton Dr. (8)
Norris, Mrs. Max S.....540 E. 36th (5)
Nourse, Mrs. Myron H..8064 Morningside Dr. (20)
Nugent, Mrs. Edwin J...6840 N. Delaware St. (20)
Nurnberger, Mrs. John I.
5215 Washington Blvd. (20)

O

O'Brian, Mrs. Earl J.
4525 Crooked Creek Ridge Rd. (8)
Ochsner, Mrs. Harold C...4565 Cold Spring Rd. (8)
Offutt, Mrs. Andrew C...750 N. Campbell Ave. (19)
Olvey, Mrs. Ottis N.....5428 Central Ave. (20)
Otten, Mrs. Claude F...5222 Washington Blvd. (20)
Overley, Mrs. Ross A.....2907 N. Warman (22)
Overley, Mrs. Toner.....3501 Watson Rd. (5)
Owens, Mrs. Tracy C.....2823 N. Meridian St. (8)

P

Pandolfo, Mrs. Harry....529 Markwood Ave. (27)
Parr, Mrs. Robert L.....6229 Evanston Ave. (20)
Patton, Mrs. Martin T.
3060 N. Meridian, Apt. 504 (8)
Paulissen, Mrs. George T.....741 Markwood (27)
Paynter, Mrs. Morris B.....115 Roberts Rd. (27)
Peck, Mrs. Franklin B., Jr.
8760 Carrollton Ave. (20)
Peirce, Mrs. James D..5027 Washington Blvd. (20)
Pennington, Mrs. Walter E.
5727 Broadway Tr. (20)
Permer, Mrs. Erwin.....5590 Grandview Dr. (8)
Peters, Mrs. Robert J. D..3203 E. Michigan St. (1)
Petranoff, Mrs. Theodore V.
2814 Questend, S. Dr. (22)
Pfaff, Mrs. O. G.....4605 N. Meridian St. (8)
Phillips, Mrs. David L.....5420 N. Meridian (8)
Pierce, Mrs. Emmett.....223 E. 24th St. (5)
Pickett, Mrs. Robert D....4713 Millersville Rd. (5)
Pilcher, Mrs. Jack E.....4601 Graceland Ave. (8)
Pitman, Mrs. John N....5001 N. Kenwood Ave. (8)
Pontius, Mrs. Edwin G.
6221 Avalon Lane, E. Dr. (20)
Popplewell, Mrs. Arvine G.
141 E. Southport Rd. (27)
Price, Mrs. Francis W.
550 East Edgewood Ave. (27)
Price, Mrs. James O...448 Wayside Dr., R. R. #14
Pryor, Mrs. Richard C...6134 Carrollton Ave. (20)

R

Raber, Mrs. Robert M.....265 Williams Ct. (20)
Rader, Mrs. George S.....3778 E. 62nd St. (20)
Rafalski, Mrs. Thomas A...3011 Sharon Ave. (22)
Ragan, Mrs. William D.....4633 Hinesley Ave. (8)
Ramsey, Mrs. Frank B.....1401 W. 52nd St. (8)
Rapp, Mrs. George F.....2644 Falcon Dr. (24)
Reed, Miss Ann.....4131 N. Meridian (8)
Reed, Mrs. Phillip B.....4131 N. Meridian St. (8)
Rees, Mrs. Russell C.
926 Ellenberger Pkwy., W. Dr. (19)
Reid, Mrs. Charles A.....6506 Madison Ave. (26)
Rhamy, Mrs. Robert K.....2706 E. 65th St. (20)
Rice, Mrs. Frederick A., Jr....5802 E. 46th St. (26)
Rice, Mrs. Raymond M.
7799 E. Holliday Drive (20)
Richardson, Mrs. Thad T.
6126 E. St. Joseph St. (19)
Ridalfo, Mrs. Anthony S.....6139 Maren Dr. (24)
Robb, Mrs. John A....5151 N. Pennsylvania St. (5)
Rochlin, Mrs. I.....5005 Kenwood (8)
Roesch, Mrs. Ryland.....5444 N. Illinois (8)
Rogers, Mrs. Donald L..2618 Bluffwood Dr., W. (8)
Roll, Mrs. John W.....6340 Branshaw (26)
Roller, Mrs. Charles W.....2301 Garfield Dr. (3)
Romberger, Mrs. Floyd T., Jr...10 W. 64th St. (20)
Rosenak, Mrs. Bernard D.
5254 N. Delaware St. (20)
Ross, Mrs. Alexander T...6050 Knyghton Rd. (20)
Ruddell, Mrs. Karl R.....2626 N. Meridian St. (8)
Ruddell, Mrs. Keith R...1201 Golden Hill Drive (8)
Rudesill, Mrs. Robert L.....5252 N. Capitol (8)
Rupel, Mrs. Ernest.....5735 N. Meridian (8)
Rust, Mrs. Byron K....8401 Washington Blvd. (20)
Rust, Mrs. Roland B., Jr....6640 Sunny Lane (26)
Ryan, Mrs. Glenn V.
3168 E. Fall Creek Pkwy., N. Dr. (5)

S

Sage, Mrs. Russell A.....8706 College Avenue (20)
Salb, Mrs. Max C.....6741 Allisonville Rd. (20)
Schaffer, Mrs. Edward V....3785 E. 62nd St. (20)
Schlaegel, Mrs. T. F.....4536 Dickson Rd. (26)
Schlegel, Mrs. Donald M.....6230 Dean Rd. (20)
Schmoyer, Mrs. M. Ray..7338 N. Audubon Rd. (20)
Schneider, Mrs. Carl J.....340 N. Kenyon (19)
Schnut, Mrs. Richard...5460 Broadmoor Plaza (8)
Schuchman, Mrs. Gabriel...5944 Central Ave. (20)
Schuster, Mrs. Dwight..4503 Washington Blvd. (5)

Scofield, Mrs. John B.....9014 Pickwick (8)
Scott, Mrs. George E.....4110 Roland Rd. (18)
Scott, Mrs. Jasper P.....5840 Winthrop Ave. (20)
Scott, Mrs. John R.....7966 N. Illinois St. (20)
Scott, Mrs. Robert P....5705 N. Pennsylvania (20)
Seaman, Mrs. Charles F...5353 Channing Rd. (20)
Sedam, Mrs. Herbert L...4819 Millersville Rd. (26)
Segar, Mrs. William E.....4855 Victoria Rd. (8)
Sellmer, Mrs. George W..8765 Rosewood Lane (20)
Sexson, Mrs. Hiram T....5455 N. Meridian St. (8)
Shafer, Mrs. Marion R...6290 Allisonville Rd. (20)
Shapiro, Mrs. Burton J...525 Woodmere Dr. (20)
Shipley, Mrs. Edward.....3601 Marrison Pl. (5)
Shumaker, Mrs. Harris B., Jr.
4330 Central Ave. (5)
Sidebottom, Mrs. F. W..2606 Bluffwood Dr., W. (8)
Sicks, Mrs. Okla W.....607 E. 82nd (40)
Siderys, Mrs. Harry....3450 N. Lynhurst Dr. (24)
Siersdorfer, Mrs. T. N....5559 W. Morris St. (41)
Sigmond, Mrs. Harvey.....3245 N. Pennsylvania
Silver, Mrs. Richard A...7421 E. Frederick Dr. (8)
Sims, Mrs. J. Lawrence.....3723 N. Gale St. (18)
Sluss, Mrs. David.....3657 Washington Blvd. (5)
Smith, Mrs. Edward B.....3322 Guilford Ave. (5)
Smith, Mrs. E. Rogers.....160 W. 47th St. (8)
Smith, Mrs. Roy Lee.....R. R. 6, Box 232 (27)
Snider, Mrs. Byron.....2717 S. East St. (3)
Solomon, Mrs. Reuben A.
5330 N. Pennsylvania (20)
Soper, Mrs. Hunter A....5321 Boulevard Place (8)
Southworth, Mrs. John W....5002 W. 15th St. (24)
Sovine, Mrs. Joe W.....8182 N. Illinois St. (20)
Spahr, Mrs. John F., Jr.
3014 Green Hills Lane, N. Dr. (22)
Spalding, Mrs. Joseph J.....7290 N. Meridian (8)
Sparks, Mrs. Alan L..5466 N. Pennsylvania St. (20)
Spears, Mrs. John M.....6910 Shelby (27)
Speckman, Mrs. Glenn H.....5342 Park Ave. (20)
Spivey, Mrs. Russell .....5590 W. 79th (68)
Sputh, Mrs. Carl B., Jr.
5671 Rolling Ridge Rd. (20)
Stach, Mrs. Thomas W.....3927 Parker Ct. (5)
Stansbury, Mrs. Wm. E.....5610 E. 16th St. (18)
Stayton, Mrs. Chester A., Sr.....6931 Central (20)
Stayton, Mrs. Chester A., Jr.
7065 Central Ave. (20)
Steinmetz, Mrs. Edward....5250 N. Delaware (20)
Stephens, Mrs. Kuhrman H.
5210 Boy Scout Rd. (26)
Stoelting, Mrs. Vergil K....4706 Laurel Circle (26)
Storey, Mrs. D. Edmund
808 Forest Blvd., N. Dr. (20)
Strang, Mrs. Wm. C.....7760 Cree Trail (50)
Streeter, Mrs. Ralph....5265 N. Meridian St. (8)
Strickland, Mrs. Neil R.....5117 E. 70th St. (20)
Stucky, Mrs. Elsworth K.
4528 N. Meridian St. (8)
Stump, Mrs. Loyd K.....4250 Kessler Lane (20)
Sutton, Mrs. William E....5670 Guilford Ave. (20)
Swan, Mrs. John R.....320 Arden Dr. (20)
Symmes, Mrs. Alfred T.....6445 N. Illinois (20)

T

Talbott, Mrs. Dan E.....6470 N. Michigan Rd. (8)
Tanner, Mrs. Henry S.
4461 N. Pennsylvania St. (5)
Taylor, Mrs. Clifford C.
3720 Briarwood Dr., E. (20)
Taylor, Mrs. Cyril.....4746 Jennys Rd. (8)
Taylor, Mrs. Frederick W.....40 E. 43rd St. (5)
Teague, Mrs. Frank W.....555 W. Pine Dr. (8)
Tether, Mrs. Joseph E., Jr.
5735 N. Pennsylvania St. (20)
Tharpe, Mrs. Ray G.....6161 Sunset Lane (8)
Thatcher, Mrs. Hugh K., Jr.....408 E. 45th St. (5)
Thomas, Mrs. Charles R.....7029 Wayland Dr. (3)
Thomas, Mrs. Fred A...3914 N. New Jersey St. (5)
Thomas, Mrs. Lowell I.....28 W. Hampton Dr. (8)
Thomas, Mrs. Morris E..6215 Spring Mill Rd. (20)
Thompson, Mrs. John V.....7899 Ridge Rd. (20)
Thompson, Mrs. Paul D.
5939 Hillside Ave., E. Dr. (20)
Thornburg, Mrs. Kenneth E....7306 N. Chester (5)
Thurston, Mrs. A. L.....4078 Central Ave. (5)
Tindall, Mrs. George.....4345 Sharon Lane (18)
Tinsley, Mrs. Walter B....3314 Carrollton Ave. (5)
Tinsley, Mrs. Walter B., Jr.
4505 Melbourne Rd. (8)
Tischer, Mrs. E. Paul.....6801 Dean Rd. (20)
Tondra, Mrs. John M.....4511 Broadway (5)
Torrella, Mrs. Jose A.....5721 W. 18th St. (24)
Trusler, Mrs. Harold M.
6150 N. Meridian St. (20)
Tuchman, Mrs. Joseph H.
8515 Spring View Dr. (60)
Tucker, Mrs. Warren S.
5338 N. Pennsylvania St. (20)
Tyler, Mrs. Edward.....5693 N. Meridian (20)

U-V

Ullom, Mrs. Ralph.....520 Wayside Dr. (60)
Van Meter, Mrs. C. Powell
4102 Marrison Place (18)
VanOsdol, Mrs. Harry A...43 W. Hampton Dr. (8)
Van Tassel, Mrs. C. J., Jr.
5842 Washington Blvd. (20)
Vollrath, Mrs. Victor J.
7980 N. Pennsylvania St. (20)
VonDerHaar, Mrs. Gerard
1109 N. Mitchner St. (19)
Vore, Mrs. Robert B.....3710 Cheviot Place (5)

W

Waldo, Mrs. J. Thayer.....420 W. 64th St. (8)
Walther, Mrs. Joseph E.
4266 N. Pennsylvania St. (5)
Walton, Mrs. William M..5242 Boulevard Place (8)
Warneke, Mrs. Charles.....2533 Ryan Dr. (20)
Warriner, Mrs. James B....990 N. Bolton Ave. (19)
Warvel, Mrs. John H.
4360 Kessler Blvd., N. Dr. (8)
Weiss, Mrs. Jason.....2790 W. 38th (8)
West, Mrs. Joseph L.....2110 W. 38th St. (8)
Westfall, Mrs. B. Kemper, Jr.
4001 N. Meridian St. (8)
Westfall, Mrs. John B.
5425 N. New Jersey St. (20)
Wheeler, Mrs. David E.
5441 Brendonridge Rd. (26)
White, Mrs. Donald J...5430 N. Delaware St. (20)
White, Mrs. Douglas H., Jr.
6920 Munsee Lane (20)
White, Mrs. John B.....5850 Highfall Rd. (26)
White, Mrs. Philip T.....5780 White Oak Ct.
Wilkens, Mrs. Irvin W.
4820 E. Pleasant Run Pkwy., N. Dr. (1)
Williams, Mrs. Charles D.....160 E. 71st St. (20)
Williams, Mrs. Howard S., Jr.
3824 N. Delaware (5)
Williams, Mrs. Hugh L....6231 Knyghton Rd. (20)
Wilmore, Mrs. Ralph C....6477 N. Tuxedo St. (20)
Wirey, Mrs. Harold R. ...2949 E. Hanna Ave. (27)
Wise, Mrs. William R.....1908 Orlando (8)
Wishard, Mrs. William N., Jr.
5720 N. Pennsylvania St. (20)
Witham, Mrs. Robert L.....5811 Ravine Rd. (20)
Wolfram, Mrs. Don J.
5716 N. Pennsylvania St. (20)
Woolling, Mrs. Kenneth R...5751 Central Ave. (20)
Worley, Mrs. J. P.....6797 E. 10th (19)
Worley, Mrs. R. H.....3705 N. Denny (18)
Wrege, Mrs. Malcolm....6505 Riverview Dr. (20)
Wright, Mrs. J. Wm., Jr.....4220 Knollton Rd. (8)
Wyttenbach, Mrs. John E.....5509 Kenwood Ave.

Y-Z

Yacko, Mrs. Michael L.....9740 E. 11th St. (19)
Young, Mrs. John M..4535 Marcy Lane, No. 261 (5)

Zell, Mrs. Evertson H....4747 Millersville Rd. (26)
Zerfas, Mrs. Charles P. A.....R. 1, Box 220 (27)
Zore, Mrs. Joseph .....3540 N. Meridian (8)

New Augusta

Asher, Mrs. Ernest O..... Box 6
Asher, Mrs. James W.....8381 Moore Rd.
Brown, Mrs. David E...7344 Lakeside Dr., Box 178

Kendrick, Mrs. William M.....R. R. #1, Mooresville
Jones, Mrs. George L.
8933 Southeastern Ave., Wanamaker
Schecter, Mrs. John S.....2560 E. 91st St., Carmel
Muller, Mrs. Victor H....R. R. 2, Box 441F, Carmel
Cuthbert, Mrs. Marvin P...R. R. 2, Box 386, Carmel
Hasewinkle, Mrs. Carroll W.
R. R. 2, Box 354, Carmel
Nolin, Mrs. Richard T...R. R. 2, Box 323D, Carmel
Wilson, Mrs. Oliver R.
Box 259, R. R. 2, Morgantown
Ramage, Mrs. Walter F.
244 S. First St., Beech Grove
MacDougall, Mrs. John D.
R. R. 1, Box 170B, Westfield
Link, Mrs. Goethe.....R. 6, Box 152, Martinsville
Gaddy, Mrs. Euclid T.....R. 2, Box 179, Plainfield
Jontz, Mrs. Richard L.
1210 Winton Ave., Speedway (24)

MARSHALL COUNTY

Hampton, Mrs. James.....Argos
Bowen, Mrs. Otis R.....304 N. Center St., Bremen
Stine, Mrs. Marshall.....Shumaler Dr., Bremen

Plymouth

Coursey, Mrs. James.....R. R. 3
France, Mrs. Lloyd.....617 Ferndale
Guild, Mrs. Kent.....1167 Pennsylvania
Kubley, Mrs. James.....624 E. LaPorte
Peterson, Mrs. Ronald.....1805 Hope
Reed, Mrs. Robert G.....235 Hogarth
Reno, Mrs. Edward .....Ferndale
Rimel, Mrs. James F.....109 Bayless
Robertson, Mrs. James S.....1081 Highland Ct.

MIAMI COUNTY

Shrock, Mrs. E. E.....Amboy
Line, Mrs. Homer.....Chili
Herd, Mrs. Cloyn R.....16 Farview, Fairview
Rendel, Mrs. H. E.....Mexico
Waite, Miss Carrie.....R. R. 2, Macy
Waite, Miss Margaret .....R. R. 2, Macy

Peru

Barnett, Helen.....109 W. Seventh St.
Gutherie, Mrs. James U.....331 W. 3rd St.
Hill, Mrs. Lloyd.....128 W. 5th St.
Johnson, Mrs. Owen.....106 W. 6th St.
Malouf, Mrs. S. D.....359 W. Third St.
Snyder, Mrs. Parker S.....159 W. 6th St.
Wildman, Mrs. R. E.....R. R. 2
Yarling, Mrs. Francis.....117 E. Fifth St.

MONTGOMERY COUNTY

Crawfordsville

Baird, Mrs. Keith.....201 S. Grant Ave.
Burks, Mrs. Jess E.....512 W. Wabash Ave.
Cooksey, Mrs. Thomas L.....205 Marshall
Cornell, Mrs. Robert.....1000 S. Washington
Daugherty, Mrs. Fred N.....415 W. Main St.
Eggers, Mrs. Richard R.....203 West St.
Haller, Mrs. Thomas C.....508 W. Main St.
Humphreys, Mrs. John W.....1309 Durham Dr.
Kirtley, Mrs. James N.....615 Thornwood Road
Lingeman, Mrs. Byron J.....203 Wallace Ave.
Millis, Mrs. Samuel C.....201 Wallace Ave.
Peacock, Mrs. Norman F.....111 Wallace Ave.
Pierson, Mrs. Robert H.....305 E. Main
Richards, Mrs. Edgar E.....Danville Rd., R. R.
Shannon, Mrs. Wesley E.....6 Locust Hill Dr.
Sharp, Mrs. John L.....1113 Durham Dr.
Viray, Mrs. V. G.....309 Jones Ave.
Wallace, Mrs. Hawthorne C.....107 W. Jefferson

Otten, Mrs. Ralph R.....Darlington
Blix, Mrs. Fred.....Ladoga
Denny, Mrs. Frank T.....Ladoga
Davis, Mrs. William H.....New Market
Kindell, Mrs. Herschel D.....New Richmond
Rusk, Mrs. Hubert M.....Wallace
Parker, Mrs. Carl B.....Wingate

MORGAN COUNTY

Martinsville

Eisenberg, Mrs. David.....340 E. Cunningham
Gray, Mrs. Leon.....260 N. Ohio
Miller, Mrs. Ray.....290 E. Washington
Pitkin, Mrs. McKendree C.....440 E. Washington
Sweet, Mrs. Austin.....260 N. Wayne
Van Wienan, Mrs. John.....439 N. Jefferson
Willan, Mrs. Horace R.....109 S. Jefferson
Wilson, Mrs. Oliver.....R. R.
Winter, Mrs. William.....269 E. Green

Mooresville

Bivin, Mrs. James H.....N. Indiana Rd.
Comer, Mrs. Charles W.....R. R. 2
Comer, Mrs. Kenneth.....R. R. 2
Johnston, Mrs. Alan.....Blue Bluff Rd.
Kendrick, Mrs. William M.....Keller Hill Rd.
Van Bokkelen, Mrs. Robert W...124 S. Indiana St.

Murphy, Mrs. M. G.....R. R. 2, Morgantown

NOBLE-LaGRANGE

(Newly-Organized)

(Members are listed alphabetically without regard to town of residence.)

Benedict, Mrs. Charles D.....R.R. #1, LaGrange
Bowman, Mrs. Charles M...202 E. Main St., Albion
Gutstein, Mrs. Richard R.
120 Diamond, Kendallville
Hooker, Mrs. Donald J...406 S. Main St., Ligonier
Lawson, Mrs. Isaac H.....Kendallville
Nash, Mrs. Justin R.....202 N. Orange, Albion
Pulskamp, Mrs. B. H.....Wolcottville
Seybert, Mrs. J. D.....Ruby St., Kendallville
Slough, Mrs. O. Thomas
112 West Mitchell, Kendallville
Stone, Mrs. Robert C.....501 S. Main St., Ligonier
Studebaker, Mrs. Lloyd R.
325 W. Spring, LaGrange
Stultz, Mrs. Quentin F...3 Hawthorn Dr., Ligonier
Wade, Mrs. Alfred.....Howe
Taylor, Mrs. Millard R.....Howe
Williams, Mrs. H. O.
735 Mitchell St., Kendallville
Williams, Mrs. John H.
221 Van Buren, Shipshewana
Yunker, Mrs. Philip.....Box 188, Howe

OWEN-MONROE COUNTIES

Bloomington

Buck, Mrs. Roger.....Adair Lane
Byrne, Mrs. Louis.....512 N. Indiana Ave.
Creek, Mrs. Jean A.....2303 Fritz Dr.
Emery, Mrs. Charles B.....1316 S. High St.

Estes, Mrs. Ambrose.....701 Highland St.
Hardtke, Mrs. Eldred F.....1400 Pickwick Place
Hepner, Mrs. H. S.....302 E. 7th St.
Hrisomalos, Mrs. Frank.....505 E. Kirkwood St.
Lundblad, Mrs. Wilfred M.....1880 Covenanter Dr.
Manifold, Mrs. Harold M.....1310 Nancy
McIntire, Mrs. Clarence R.....2424 N. Dunn Rd.
Middleton, Mrs. Thomas O.....210 Gilbert Ave.
Milan, Mrs. Joseph F.....1510 Pickwick Place
Poolitsan, Mrs. George.....1217 E. First St.
Quarles, Mrs. Edgar B.....811 Woodlawn St.
Reed, Mrs. William C.....1215 Atwater Ave.
Rollins, Mrs. Thomas K.....815 S. Rose Ave.
Smith, Mrs. Hershel S.....200 Glendora Dr.
Spencer, Mrs. Beauford A.....1224 Maxwell Lane
Stangle, Mrs. William.....603 N. Fess
Taraba, Mrs. Ralph.....211 E. Martha Ave.
Thomas, Mrs. Harry.....129 S. Swain St.
Topolgus, Mrs. James.....1015 Atwater Ave.
Tyler, Mrs. Stanley.....1419 Nancy St.
Wenzler, Mrs. Paul J.....150 Sunnyslopes Dr.

Stouder, Mrs. C. E.....Ellettsville

PARKE-VERMILLION COUNTIES

Clinton

Evans, Mrs. F. J.....1315 S. Main St.
Gerrish, Mrs. W. D.....125 S. 5th St.
Herzberg, Mrs. Milton.....545 S. Fourth St.
Kercheval, Mrs. J. M.....Box 192

Britton, Mrs. W. D..Bloomingdale Rd., Montezuma
DeRenne, Mrs. W. L.....190 Market St., Newport
Goodrum, Mrs. W. R.....Cayuga

Rockville

Bloomer, Mrs. Joseph.....115 N. Market
Bloomer, Mrs. R. S.....502 W. York St.
Kempf, Mrs. Gerald F.....Ind. State Sanitarium
Merrell, Mrs. Basil M.....Woodland Dr.

PERRY-SPENCER COUNTIES

Bush, Mrs. Hargis R.....Sixth St., Cannelton
Glackman, Mrs. John C...207 Center St., Rockport
Gilbert, Mrs. Robert.....411 E. 7th, Cannelton
Snyder, Mrs. Earl.....Troy

Tell City

Dukes, Mrs. David A.....521 Main St.
Glenn, Mrs. Fred C.....436 Main St.
Herr, Mrs. William J.....Boyd Road
James, Mrs. John Mark.....24 11th St.
James, Mrs. Nicholas A.....740 Ninth St.
Kemker, Mrs. Bernard P.....1716 13th St.
Lally, Mrs. Bernard.....918 Main
Lashley, Mrs. Donald L.....606 Ninth St.
Lohoff, Mrs. Lewis C.....425 10th St.
Neifert, Mrs. Noel L.....1118 Blum St.
Ress, Mrs. Gene E.....1717 14th St.
Smith, Mrs. Fred, Jr.....1407 12th Street

PORTER COUNTY

Chesterton

Griffin, Mrs. Joseph.....419 S. Jackson
Hall, Mrs. Thomas.....Dune Acres
Harless, Mrs. C. M.....123 W. Indiana Ave.
Read, Mrs. John E.....403 E. Morgan
Robertson, Mrs. W. C.....600 E. Morgan

Valparaiso

Brown, Mrs. J. C.....1808 Napoleon
Davis, Mrs. Carl.....202 Indiana
DeGrazia, Mrs. E. J.....410 Washington
Douglas, Mrs. George R.....404 Washington
Eades, Mrs. Ralph.....203 Jefferson
Frank, Mrs. John R.....303 Indiana
Gold, Mrs. Marvin E.....1302 Napoleon
Griffin, Mrs. Charles R.....557 Meadow Lane
LaRocca, Mrs. Joseph.....402 Erie
Makovsky, Mrs. Theodore...1807 Beulah Vista Dr.
O'Neill, Mrs. Martin J.....301 Washington
Sacks, Mrs. Leonard Z.....563 Ravine Dr.
Seipel, Mrs. Herman O.....302 Lafayette
Vietzke, Mrs. Paul.....102 Lafayette

PUTNAM COUNTY

Veach, Mrs. Richard L.....Bainbridge
Gray, Mrs. Clyde C.....Cloverdale
Ellet, Mrs. John D.....Coatsville

Greencastle

Dettloff, Mrs. Frederick R.....300 Highfall Ave.
Johnson, Mrs. James B.....314 Highfall Ave.
Schauwecker, Mrs. Cleon M.....613 Ridge Ave.
Smith, Mrs. Wm. A.....R. F. D. 2
Steele, Mrs. Dick J.....207 Northwood Blvd.
Stephens, Mrs. James P.....Shadowlawn
Tennis, Mrs. George T.....602 S. Jackson
Tipton, Mrs. William R.....103 Northwood Blvd.
Wiseman, Mrs. V. Earle.....6 Durham Ave.

RANDOLPH COUNTY

Farmland

Nixon, Mrs. Byron.....312 N. Main
White, Mrs. Harvey E.....200 S. Main

Harmon, Mrs. Wayne.....113 Church St., Lynn
Shallenberger, Mrs. H. R.....Modoc
Potter, Mrs. Richard M..120 W. Walnut, Ridgeville

Union City

Chambers, Mrs. Carol R.....1000 N. Columbia
Chambers, Mrs. Leroy B.....800 N. Columbia
Landon, Mrs. David L.....623 N. Columbia St.
McClure, Mrs. Morris E.....702 Hickory St.
Phipps, Mrs. Leland K.....516 N. Howard
Reid, Mrs. Robert W.....706 W. Division
Wagoner, Mrs. B. D.....409 N. Columbia St.

Winchester

Dininger, Mrs. William S.....303 S. Main St.
Engle, Mrs. Russell B.....R. R. 2
Painter, Mrs. Lowell W.....507 S. Main
Slick, Mrs. C. R.....512 S. Oak Street
Sparks, Mrs. Paul W.....601 W. Will
Spitler, Mrs. C. A.....R. R. #4

RIPLEY COUNTY

Freeland, Mrs. Bill..714 Edgewood Rd., Batesville
Hisrich, Mrs. L. W.....222 Maplewood, Batesville
Lippoldt, Mrs. Chas. L. Edgewood Rd., Batesville
Warn, Mrs. William.....Milan
Row, Mrs. George.....R. R. 3, Osgood
McConnell, Mrs. William C.....Sunman
Moran, Mrs. N. D.....Versailles

RUSH COUNTY

McNabb, Mrs. George B.....Carthage
Worth, Mrs. C. Willard.....Milroy

Rushville

Atkins, Mrs. C. C.....410 N. Perkins
Corpe, Mrs. Kenneth F.....R. R. 4
Deerhake, Mrs. William A.....501 N. Harrison
Denny, Mrs. Melvin.....R. R. #1
Ellis, Mrs. Davis W.....721 N. Perkins
Green, Mrs. Frank H.....516 N. Morgan
Hoover, Mrs. Eugene.....501 N. Harrison
Johnson, Mrs. Robert.....841 N. Harrison

McKee, Mrs. Harry S.....R. R. 6
Norris, Mrs. Marvin.....1107 N. Main St.
Shanks, Mrs. Roy E.....1110 N. Morgan
Smith, Mrs. Stephen D...4 Maple Dr., Knightstown

ST. JOSEPH COUNTY

Mishawaka

Booth, Mrs. Franklin M.....531 Edgewater Dr.
Barone, Mrs. C. V.....59053 Bremen Highway
Ganser, Mrs. Richard A.....1020 Wilson Blvd.
Goethals, Mrs. Charles J.....602 Lincolnway W.
McDonald, Mrs. R. M.....12252 E. Jefferson Road
Orr, Mrs. Robert.....1335 Prospect Dr.
Reed, Mrs. Robert.....903 Homewood
Rosenwasser, Mrs. Jacob.....834 Lincolnway E.
Sirlin, Mrs. Edward M.....14736 Jefferson Rd.
Spalding, Mrs. Wendell L.....60100 So. Fir Road
Templeton, Mrs. Ames R.....522 Calhoun St.
Walerko, Mrs. Frank M.....515 N. Clay St.
Walters, Mrs. Charles E.....16166 Ireland Rd.
Whitlock, Mrs. Francis C.....304 Lincoln Way E.
Whitlock, Mrs. Merle E.....16146 Chandler Blvd.
Wurster, Mrs. H. C.....221 E. Third St.
Zimmer, Mrs. Harry J.....333 Edgewater Dr.

Houser, Mrs. D. S.
24751 N. Riley Rd., North Liberty
Spenner, Mrs. Raymond W.
R. R. 3, Diamond Lake, Cassopolis, Mich.

South Bend

A

Acker, Mrs. Robert B.....103 S. Ironwood Dr.
Arisman, Mrs. R. K.....1615 E. Colfax Ave.

B

Backs, Mrs. Alton J.....1953 Inglewood Place
Bartsch, Mrs. Harvey L.....61397 S. Miami Rd.
Bechtold, Mrs. Samuel E.....313 Pendle St.
Bell, Mrs. H. D.....1357 Champeau St.
Bell, Mrs. R. L.....109 S. Ellsworth
Bennett, Mrs. Jene R.....1826 E. Jefferson Blvd.
Berke, Mrs. Robert D.....1420 Jefferson Blvd.
Biasini, Mrs. Ben A.....19585 Glendale Road
Bickel, Mrs. David A.....1335 E. Wayne St. N.
Birmingham, Mrs. P. J....61490 Meadowlark Lane
Bixler, Mrs. Louis C.....1817 Portage Ave.
Blackburn, Mrs. Erwin.....1340 E. Madison Ave.
Bodnar, Mrs. Leslie M.....1843 Portage Ave.
Bogan, Mrs. Wm. C.....1512 Hass Dr.
Borough, Mrs. Lester D.....24030 Cleveland Dr.
Brechtl, Mrs. H. J.....2305 E. Washington
Buchanan, Mrs. Wallace D...1326 E. Wayne St., N.
Buechner, Mrs. Fred W.....603 W. Marion St.
Buslee, Mrs. Roger M.....1331 E. South St.

C

Carter, Mrs. F. R. N.....2000 E. Jefferson Blvd.
Cassady, Mrs. John R.....1805 Marquette Blvd.
Cassady, Mrs. J. Vernal.....2216 E. Madison
Chamblee, Mrs. Roland W.....1435 Corby Blvd.
Clark, Mrs. William H.....1227 Garland Rd.
Colip, Mrs. George D.....260 David St.
Cook, Mrs. Gordon C.....1620 Southwood Ave.
Custer, Mrs. Edward W.....52383 Laurel Road

D

Davis, Mrs. Edward A.....52820 Kenelworth Rd.
Denham, Mrs. Robert H., Jr.....1515 Colfax
DeVoe, Mrs. K. R.....52978 Highland Dr.
Dingley, Mrs. Albert F.....1976 Briar Way
Dodd, Mrs. Robert D.....1510 Tudor Lane
Dolezal, Mrs. Bernard J.....815 Park Ave.
Donnelly, Mrs. Everett F.....1246 E. Jefferson St.
Dunlap, Mrs. D. Logan.....123 North Shore Dr.

E

Eades, Mrs. R. Charles.....232 Marquette Ave.
Ebin, Mrs. J. L.....1223 N. Lawrence St.
Edwards, Mrs. Bernard E.....1340 Garland Rd.
Egan, Mrs. Sherman L.....944 Riverside Dr.
Engel, Mrs. Howard P.....1112 S. 20th
English, Mrs. J. Paul.....3116 Robinhood Lane
Ericksen, Mrs. L. G.....1212 E. Woodside
Erickson, Mrs. G. Walter....3012 Robinhood Lane

F

Feferman, Mrs. Martin E.....125 S. Esther St.
Feldman, Mrs. Max.....1310 E. Fairview
Filipek, Mrs. Walter J.....2513 Lincoln Way West
Firestein, Mrs. Ben Z.....125 W. Marion Street
Firestein, Mrs. Ray.....502 N. Ironwood Dr.
Fish, Mrs. Edson C.....19054 Summers Drive
Foley, Mrs. Hansel.....280 David St.
Forrest, Mrs. O. Norman.....50765 Parian Ave.
Frank, Mrs. Herbert....2616 S. Twyckenham Dr.
Frank, Mrs. L. L.....534 N. Lafayette Blvd.
Frank, Mrs. L. L., Jr.....1750 N. Wilbur
Frash, Mrs. D. W.....1912 Miami Street
Frey, Mrs. William B.....1714 E. Bader

G

Gaffney, Mrs. Raymond.....534 Peasway St.
Gates, Mrs. George E.....411 W. North Shore Dr.
Gilman, Mrs. Marcus.....1925 E. Jefferson Blvd.
Godersky, Mrs. George E.....2744 Sampson St.
Goraczewski, Mrs. T. C.....1016 W. Washington
Graf, Mrs. John F.....424 Peashway
Green, Mrs. George F.....1515 E. Wayne St.
Green, Mrs. Norvel E.....1726 E. LaSalle Ave.
Grove, Mrs. James H.....60268 Mayflower Rd.

H

Hamilton, Mrs. Charles O.
1418 E. Washington Ave.
Haugseth, Mrs. Ellsworth K.....820 N. Ironwood
Hawkins, Mrs. Glen E.....17280 Parker Ave.
Helmer, Mrs. John.....315 W. N. Shore Dr.
Hildebrand, Mrs. J. O.....1637 Southbrook Dr.
Hill, Mrs. Theodore.....107 N. Eddy St.
Hill, Mrs. Wallace C.....1221 Sunnymede Ave.
Hillman, Mrs. Marion W.....1516 Marquette Blvd.
Holtzman, Mrs. Norman.....3322 Whitcomb
Hyde, Mrs. Carroll C.....1521 E. Colfax Ave.

J-K

Jankowski, Mrs. Ernest B.....411 S. Sheridan Ave.
Kamm, Mrs. Bernard A.....125 W. Marion St.
Karn, Mrs. John W.....1535 Wall St.
Krueger, Mrs. John E.....620 Peashway
Kuhn, Mrs. Frederick L.....1215 S. Michigan St.

L

Lamb, Mrs. Leonard J...1321 E. Wayne St., South
Lane, Mrs. William H.....845 Park Ave.
Lang, Mrs. Joseph E.....505 Dixie Highway N.
Lester, Mrs. Vern L.....2819 Woodmont
Levatin, Mrs. Bernard L.....1814 E. Churchill Dr.
Levkoff, Mrs. Abner.....3239 Essex Dr.
Lionberger, Mrs. John R...1419 E. Jefferson Blvd.
Liss, Mrs. Emanuel C.....1195 Eddy
Lockhart, Mrs. Philip B.....1611 E. Wayne

M

McCraley, Mrs. William J.....1737 Belmont Ave.
McMeel, Mrs. James.....1138 Whitehall Dr.
MacLeod, Mrs. John K.....930 Simmon Ct.
Mahank, Mrs. Camiel C.....1804 E. Jefferson
Marquis, Mrs. Gordon.....329 Wakewa
Martin, Mrs. Charles F., Jr.....2125 Linden Ave.
Martinov, Mrs. William E.....1421 Wall St.
Mason, Mrs. Bernard A.....2719 Marine St.
Mauzy, Mrs. Merritt.....1740 Hass Dr.
Metcalfe, Mrs. Grant E.....1209 E. Wayne, No.

Miller, Mrs. Milo K.....1018 E. Oakside
Mott, Mrs. C. A.....2733 Lincolnway West
Mueller, Mrs. Hilbert M.....3525 Windingwood Dr.
Murphy, Mrs. Eugene C.....1411 Sunnymede Ave.

N-O

Neher, Mrs. John L.....17371 Cleveland Rd.
Nelson, Mrs. Raymond E.....1909 E. Madison St.
Olson, Mrs. Donald T.....127 S. Ellsworth Pl.
Olson, Mrs. Kenneth L.....1228 E. Woodside Ave.
Oren, Mrs. William.....1149 E. Belmont

P

Parsons, Mrs. Robert.....1464 Ridgedale Rd.
Pascuzzi, Mrs. Chris A.....1112 S. 20th St.
Pauszek, Mrs. Thomas B.....916 Riverside Dr.
Petrass, Mrs. Andrew.....22027 Liberty Highway
Phelps, Mrs. Stephen R.....444 S. Greenlawn
Plain, Mrs. George.....17836 Ponader Drive
Pyle, Mrs. H. Dale.....115 N. Sunnyside Ave.

R

Rigley, Mrs. Edward L.....1704 Ridgedale Rd.
Roberts, Mrs. Billy J.....1523 Crestwood Blvd.
Rosenheimer, Mrs. George M.....1425 E. Woodside
Rubens, Mrs. Eli.....1240 E. Irvington

S

Sanderson, Mrs. Robert B..1331 Sunnymede Ave.
Sandock, Mrs. I.....1203 N. Notre Dame Ave.
Sandock, Mrs. Louis E.....235 S. Esther St.
Sandoz, Mrs. Harry H.....239 S. Hawthorne Dr.
Sandoz, Mrs. Louis A.....125 W. Marion
Schaphorst, Mrs. Richard A....1124 Whitehall Dr.
Schiller, Mrs. Herbert A.....1813 E. Cedar St.
Scott, Mrs. Frank M.....1220 E. Woodside
Selby, Mrs. Keith E.....1327 E. Wayne, No.
Sellers, Mrs. Francis.....814 Oakridge Dr.
Sensenich, Mrs. Roscoe L.....128 S. Scott St.
Sharp, Mrs. Merle C.....17772 Woodthrush Lane
Shriner, Mrs. Richard.....53362 Juniper Rd.
Sisson, Mrs. Norval D.....1614 Oak Park Dr.
Skillern, Mrs. Scott.....1553 Southbrook Dr.
Slominski, Mrs. Harry H.....1862 College St.
Staunton, Mrs. Henry A.....124 S. 34th St.
Stiver, Mrs. Dan D.....1127 E. Wayne St. N.
Stogdill, Mrs. William.....520 N. Coquillard

T

Thompson, Mrs. John M.....1618 E. Cedar St.
Thornton, Mrs. M. J.....R. R. #2, Miami Rd.
Tirman, Mrs. Wallace S...1224 E. Wayne St., No.

V-W-Z

Vagner, Mrs. S. Bernard...53190 Willow Run Road
Van Fleit, Mrs. W. E.....911 E. Woodside
Vurpillat, Mrs. F. J.....2102 E. Cedar St.
Ward, Mrs. James.....19248 Summers Dr.
Weiss, Mrs. Eugene.....1605 E. Washington Ave.
White, Mrs. Donald G.....1721 E. Altgeld
Wilson, Mrs. James M.....1507 E. Wayne
Zeiger, Mrs. Irwin L.....1205 E. Irvington

SHELBY COUNTY

Nigh, Mrs. R. M.....Fairland
Davis, Mrs. John A.....Flat Rock

Shelbyville

Arata, Mrs. Lucian A.....327 W. Broadway
Dalton, Mrs. Wilson L.....1712 Culbertson
Gehres, Mrs. Robert W.....610 Shelby
Grove, Mrs. E. G.....242 W. Broadway
Inlow, Mrs. Herbert H.....212 N. Harrison
Inlow, Mrs. W. D.....Spring Hill Rd.
McFadden, Miss Marian.....28 W. Mechanic St.
McFadden, Mrs. Walter C.....28 W. Mechanic
Miller, Mrs. Richard C.....17 W. Mechanic
Moheban, Mrs. Joseph.....Spring Hill Rd.
Paz, Mrs. Luis.....526 E. McKay Rd.
Phares, Miss Frances.....408 S. Harrison
Richard, Mrs. Norman F.....541 Lockerbie Rd.
Scott, Mrs. Virgil B.....R. R. 2, N. Riley Hwy.
Silbert, Mrs. David B.....1100 Fairfield Drive
Spindler, Mrs. Robert D.....165 W. Mechanic
Tindall, Mrs. Paul R.....164 W. Franklin
Tindall, Mrs. William R.....616 S. Harrison
Tower, Mrs. James H., Jr.....1018 S. West Street
Whitcomb, Mrs. Roger F.....218 W. Broadway

STARKE COUNTY

DeNaut, Mrs. James F.....4 N. Heaton, Knox
Henry, Mrs. Howard J.....R. R. 1, Knox
Ingwell, Mrs. Guy B.....201 South Heaton, Knox
Leinbach, Mrs. Earl R.....206 Davis, Hamlet

TIPPECANOE-WHITE COUNTIES

Lafayette

Babb, Mrs. Forrest J.....2106 South 9th St.
Baker, Mrs. John R.....R. R. 12
Bayley, Mrs. Richard D.....725 S. 11th St.
Buhrmester, Mrs. Harry C.....Freiberger Lane
Carpenter, Mrs. John B.....1720 Scott St.
Dubois, Mrs. Ramon B.....519 Calvert Lane
Fields, Mrs. Donald C.....R. R. 12
Flack, Mrs. Russell A.....3600 Cypress Lane
Flood, Mrs. James L.....1116 N. 15th St.
Frey, Mrs. Harley H.....505 Calvert Lane
Graham, Mrs. Thomas G.....1213 Wea Ave.
Harter, Mrs. Eli B.....918 King St.
Holladay, Mrs. Lloyd J.....1403 S. 14th St.
Horswell, Mrs. Richard R.....2312 Dakota Dr.
Johnson, Mrs. Herbert S.....712 Cherokee
Jones, Mrs. David.....2055 S. Ninth St.
Karberg, Mrs. Richard J.....1212 El Prado
Klepinger, Mrs. Harry E.....909 N. 21st St.
Kohne, Mrs. Robert W.....1001 Pontiac
Landis, Mrs. C. Byron.....70 Collins Dr.
McAdams, Mrs. Hugh B.....2110 Birch Lane
McKinley, Mrs. Joseph.....610 Lingle Terrace
Miller, Mrs. Albert J.....927 Highland Ave.
Neumann, Mrs. Kenneth O.....1410 S. 18th St.
Onorato, Mrs. Joseph J.....2606 South St.
Ratcliff, Mrs. Frank W.....1000 Wea Ave
Rothrock, Mrs. Philip W.....605 Lingle Ave.
Shively, Mrs. John L.....1615 S. 5th St.
Sholty, Mrs. William M.....Shadeland Farm Rd.
Smith, Mrs. Lowell C.....615 Lingle
Trout, Mrs. Carl J.....800 State St.
Underwood, Mrs. George M.....2540 Lafayette Dr.
VanReed, Mrs. Earl.....806 S. 9th St.
Vermilya, Mrs. Robert W...R. R. 5, Cedar Bluff Rd.
Washburn, Mrs. Wm. W.....918 Rochester St.
Williams, Mrs. Robert E.....403 Asher

West Lafayette

Bahler, Mrs. Dean R.....104 Mohawk Ln.
Bayley, Mrs. William E.....622 Rose St.
Bolin, Mrs. Robert C.....908 Windsor Dr.
Burns, Mrs. John T.....100 Tecumseh Park Place
Bush, Mrs. Jack A.....1611 N. Grant St.
Calvert, Mrs. Raymond R.....308 Park Lane
Canganelli, Mrs. Vincent G.....2310 N. River Rd.
Combs, Mrs. Loyal W.....514 Rose St.
Davis, Mrs. Howard B.....833 Hillcrest Rd.
Eaton, Mrs. Marion J.....425 Forest Hills Dr.
Elliott, Mrs. Paul W.....348 W. Stadium
Engeler, Mrs. James E.....1316 N. Grant St.
Ferguson, Mrs. William B.....430 Forest Hills Dr.
Gripe, Mrs. Richard P.....2179 Tecumseh Park Ln.
Hogle, Mrs. Frank D.....334 Laurel Dr.
Hughes, Mrs. Richard R.....908 Carrolton Blvd.
Hull, Mrs. James E.....328 Leslie Ct.
Johnson, Mrs. Lowell R.....1601 Woodland Dr.
Klatch, Mrs. Ben Z.....1415 Woodland Dr.

Loop, Mrs. Frederick A.....119 Leslie Dr.
Marsh, Mrs. George W.....2121 Happy Hollow Rd.
Marvel, Mrs. Howard R.....136 Arrowhead Dr.
McAdams, Mrs. Robert.....625 Ridgewood
McFadden, Mrs. James M.....1424 N. Salisbury
Mather, Mrs. Charles R.....1815 Ravinia Rd.
Mather, Mrs. Robert L.....321 Leslie Ave.
Miller, Mrs. Roland E.....600 Ridgewood Dr.
Mount, Mrs. William M.....217 Pawnee Dr.
Peyton, Mrs. Frank W.....612 Ridgewood Dr.
Stahl, Mrs. Edward T.....324 Park Lane
Steele, Mrs. Hugh H.....118 Sunset Lane
Stuntz, Mrs. Edgar C.....271 E. Sunset Lane
VanBuskirk, Mrs. Edwin L.....1301 Ravinia Rd.
VanDen Bosch, Mrs. W. R.....715 Princess Dr.
Weaver, Mrs. Richard J.....1504 N. Grant
Weller, Mrs. Wendell A.....105 Pawnee Dr.

Lind, Mrs. Jaap J.....Mulberry
Gish, Mrs. Howard M.....Brookston
Weller, Mrs. Ralph.....Rossville

VANDERBURGH COUNTY

(Southwestern)

Stover, Mrs. Wendell C.
20 Lake Shore Dr., Boonville

Evansville

A

Acre, Mrs. Robert R.....2311 Lincoln Ave.
Adler, Mrs. Ray N.....1660 Lincoln Ave.
Adye, Mrs. Wallace M.....320 Inwood Dr.
Alexander, Mrs. John E.....1105 S. E. First
Antes, Mrs. Earl H.....1201 Bonnieview Dr.
Arendell, Mrs. Robert E.....710 S. Weinbach Ave.
Austin, Mrs. Eugene W.....2163 Bayard Park Dr.

B

Baker, Mrs. Mason R.....4500 E. Cherry St.
Barnhart, Mrs. Willard T.....507 S. Boeke Rd.
Beck, Mrs. Robert E.....6000 Newburgh Rd.
Bender, Mrs. Martin J.....500 Scenic Dr.
Bennett, Mrs. Abner P.....961 Blue Ridge Rd.
Bissonette, Mrs. Roger P.....911 Colony Rd.
Boone, Mrs. Robert D.....417 S. Alvord
Brakel, Mrs. Frank, Jr.....1849 McConnell Ave.
Britt, Mrs. Robert L.....6317 Newbourgh Rd.
Brockmole, Mrs. Arnold W.
5901 New Harmony Rd.
Brown, Mrs. George W.....757 S. Lombard
Bryan, Mrs. Stanton L.....3211 E. Mulberry St.
Buehner, Mrs. Donald F.....1200 Bonnieview Dr.
Burger, Mrs. Thomas C.....2331 Washington Ave.
Burnikel, Mrs. Ray H.....960 S. Rotherwood Ave.
Burress, Mrs. Clyde.....10100 Old St. Rd.

C

Cacia, Mrs. John J.....420 S. Boeke Rd.
Carlson, Mrs. Ralph F.....1350 Bayard Park Dr.
Clark, Mrs. Thomas W.....810 Plasa Dr.
Clouse, Mrs. Paul A.....2066 Bayard Park Dr.
Cockrum, Mrs. William M.....1414 Parkside Dr.
Coleman, Mrs. Joseph E.....2831 Wayside Dr.
Cooper, Mrs. Wallace.....4410 Oak St.
Corcoran, Mrs. P. J. V.....2412 E. Chandler Ave.
Crawford, Mrs. James.....631 Blue Ridge Dr. North
Crevello, Mrs. Albert J.....1664 Lincoln Ave.
Cuff, Mrs. Steve C.....3105 E. Oak St.
Cullnane, Mrs. Chris W.....3020 Mt. Vernon Ave.
Cymbala, Mrs. Bohden.....R. R. 8, Box 428

D

Daves, Mrs. W. Lawrence.....708 College Hwy.
Davidson, Mrs. Harold H.....800 Blue Ridge Rd.
Deems, Mrs. Myers.....6830 Arcadian Highway
Denzer, Mrs. Edward K.....540 Scenic Dr.
Denzer, Mrs. William O.....923 Bellemeade
Dieckman, Mrs. Herbert S.....10 Johnson Place
Dodd, Mrs. R. K.....1705 S. New Green River Rd.
Durkin, Mrs. John W., Jr.....2524 Adams St.
Dycus, Mrs. Walter A.....3400 Koring Rd.
Dyer, Mrs. Wallace K.....812 St. James Blvd.

E

Engel, Mrs. Edgar L.....1411 E. Park Dr.
Ewer, Mrs. Robert W.....7226 E. Blackford

F

Faith, Mrs. Ira L., Jr.....950 Blue Ridge Road
Faul, Mrs. Henry J.....725 S. Willow Rd.
Faw, Mrs. Melvin L.....2400 E. Chandler
Fenneman, Mrs. Robert J.
Box 145, R. R. 8, Old St. Rd.
Fisher, Mrs. William C.....1319 S. Kentucky
FitzGerald, Mrs. Maurice D...924 Bayard Park Dr.
Fitzsimmons, Mrs. Elvin L.....500 S. Boeke Rd.

G

Garland, Mrs. Edger A.....719 Plaza Dr.
Gaul, Mrs. L. Edward.....508 S. Boeke Rd.
Geller, Mrs. Samuel.....R. R. 8, Box 143-A
Getty, Mrs. William H.....1810 Mt. Auburn Road
Giorgio, Mrs. Douglas J.....916 S. Burkhart Road
Griep, Mrs. Arthur H.....5414 Madison Ave.
Grimm, Mrs. William C.....513 S. Rotherwood
Guckien, Mrs. Joseph L.....1612 S. E. Blvd.

H

Hammond, Mrs. R. Case.....6820 Arcadian Hwy.
Harlan, Mrs. William L.....731 S. Frederick
Harned, Mrs. Ben King, Jr.....8232 Maple Lane
Harris, Mrs. Robert L.....4 Woodmere Dr.
Hart, Mrs. Paul L.....1436 Lincoln Ave.
Hartley, Mrs. Clarence A., Jr.....300 Hesmer Rd.
Hassel, Mrs. Walter.....732 E. Maryland
Heinrich, Mrs. Weston A.....1408 Lincoln Ave.
Hendershot, Mrs. Eugene L...7006 Newburgh Road
Hermayer, Mrs. Stephen....1316 Bonnieview Dr.
Herrmann, Mrs. Gordon T.....218 S. Spring St.
Herzer, Mrs. Clarence C.....211 E. Mill Rd.
Himebaugh, Mrs. Gilbert J.....408 S. Alvord Blvd.
Hobgood, Mrs. James L.....6400 Jefferson
Hoover, Mrs. Guy J.....864 Lodge Ave.
Hovda, Mrs. Richard B.....800 St. James Blvd.
Huggins, Mrs. Victor S.....520 S. Alvord Blvd.
Hyatt, Mrs. Gilbert T.....1616 Mt. Auburn Rd.

J-K

Johnson, Mrs. Stephen L.....2215 Lincoln Ave.
Johnson, Mrs. Victor.....1303 Masker Pk. Dr.
Kelly, Mrs. John B.....9130 Petersburg Rd.
Kiechle, Mrs. Fred L.....726 S. E. First St.
Kincaid, Mrs. Robert S.....5417 Stringtown Rd.

L

Laubscher, Mrs. Clarence A.....6621 Kratzville Rd.
Lawrence, Mrs. Joseph C...1362 E. Chandler Ave.
Leibundguth, Mrs. Henry.....5206 Lincoln Ave.
Leslie, Mrs. Ermil T.....1100 S. Vann
Lewis, Mrs. Earl T.....550 S. Ruston
Logan, Mrs. Jesse R.....503 First Ave.

M

MacKenzie, Mrs. Pierce.....2300 E. Gum St.
Manner, Mrs. Richard.....835 S. Burkhardt Rd.
Marchand, Mrs. John H. Jr.....1154 S. Villa
Marvel, Mrs. James A.....1431 Green Meadow
Mathews, Mrs. James R.....901 Meadow Rd.
Maxson, Mrs. Roy V.....763 S. Weinbach Ave.
McCool, Mrs. Joe H.....6314 Old State Rd.
McDonald, Mrs. Joseph D.....4300 Lincoln Ave.
McKeon, Mrs. Edward D.....416 S. Runnymeade
McPherson, Mrs. Thomas.....5506 O'Hara Dr.
Mehl, Mrs. Rudolph A.....631 Blue Ridge Dr.
Meyer, Mrs. Keith T.....399 S. Alvord Blvd.
Miller, Mrs. LaVerne B.....501 Scenic Drive
Miller, Mrs. Milton J.....8201 Newburgh Rd.

Mills, Mrs. Fred E.....555 S. Kelsey Ave.
Mino, Mrs. Robert A.....2808 N. Shore Dr.
Moehlenkamp, Mrs. Charles E.
5401 Stringtown Rd.

N

Newman, Mrs. Raymond L...727 College Highway
Nicholson, Mrs. Raymond W.....2009 Mahrendale
Niedermayer, Mrs. Alfred J.....815 College Hwy.
Nonte, Mrs. Lee R.....714 S. Willow Rd.

O

Oswald, Mrs. Robert H.....2423 Lincoln Ave.

P

Pastor, Mrs. Julius W.....5901 Washington Ave.
Pavlick, Mrs. Theodore J...200 S. Lincoln Pk. Dr.
Pemberton, Mrs. Jack James..Falstead Rd., R. R. 1
Pollard, Mrs. Walter S.....1230 S. E. Second St.
Porre, Mrs. Francis W.....909 Villa Dr.
Present, Mrs. Julian D.....201 S. Parker Dr.
Pugh, Mrs. Willis L.....5204 Lincoln Ave.

R

Ratcliffe, Mrs. Albert W.....510 S. E. First St.
Reich, Mrs. Clarence E.....1209 N. Fulton Ave.
Richey, Mrs. Clifford O.....407 Congress Ave.
Rietman, Mrs. H. Jerome.....2325 Lincoln Ave.
Rininger, Mrs. Harold C.....2154 E. Gum St.
Ritchie, Mrs. William D.....5201 Stringtown Rd.
Ritz, Mrs. Albert.....2004 Lincoln Ave.
Rosenblatt, Mrs. Bernard B....626 St. James Blvd.
Royster, Mrs. Robert Allen.....34 Johnson Place
Rudolph, Mrs. Kenneth.....2701 E. Walnut
Rupper, Mrs. Warren R.
Heckle Rd., Box 159, R. R. 3
Rusche, Mrs. Henry J.....315 W. Iowa St.
Russell, Mrs. Richard H.....1015 Harrelton Ct.

S

Schimmelpfennig, Mrs. Robert W.
3014 Washington Ave.
Schirmer, Mrs. Robert H.....2710 Hartmetz Ave.
Schneider, Mrs. Charles P....2924 W. Maryland St.
Sinn, Mrs. Charles M.....1509 Redwing Dr.
Slaughter, Mrs. Howard C.....651 St. Mary's Dr.
Slaughter, Mrs. John C.....622 College Hwy.
Slaughter, Mrs. Owen L....506 St. James Blvd. So.
Smith, Mrs. Roy M.....3213 Kensington
Sprecher, Mrs. Herman C.....6601 Newburgh Road
Springstun, Mrs. W. Russel.....854 Lodge Ave.
Stallings, Mrs. Hugh A.....7601 Newburgh Rd.
Steele, Mrs. Paul W.....1906 Bellemeade Ave.
Sterne, Mrs. John H.....2309 E. Gum St.
Stewart, Mrs. L. Raymond.....2081 Polaris
Stork, Mrs. Urban F. D.....414 S. Kelsey Ave.
Strueh, Mrs. Paul E.....1207 Harrelton Ct.

T

Tager, Mrs. Stephen H.....700 S. Meadow Rd.
Tisserand, Mrs. John B. Jr...637 College Highway
Tuholski, Mrs. James M.....520 S. Roosevelt Dr.
Tweedall, Mrs. Daniel G.....900 S. Meadow Rd.

V-W

Visher, Mrs. John W.....510 E. Mt. Pleasant Rd.
Vonder Haar, Mrs. Thomas E.
901 S. Burkhardt Rd.
Walker, Mrs. William F.....1220 Cullen Ave.
Walter, Mrs. Robert F.....1514 S. Kentucky Ave.
Warner, Mrs. Charles L.....4120 Bellemeade Ave.
Waters, Mrs. George E.....2 Woodmere Dr.
Weber, Mrs. Edgar H.....3008 E. Powell Ave.
Weiss, Mrs. H. G.....1014 E. Powell Ave.
Welborn, Mrs. Mell B.....1832 Mt. Auburn Rd.
Wilhelmus, Mrs. C. Kenneth..6929 Newburgh Rd.
Wilhelmus, Mrs. Gilbert M.....5901 Newburgh Rd.
Willison, Mrs. George W.....605 St. Mary's Dr.
Wilson, Mrs. John D.....921 Colony Rd.
Wilson, Mrs. Ralph.....1522 Audubon Dr.
Wynn, Mrs. Justice F.....651 S. Weinbach Ave.

Y-Z

Young, Mrs. C. Curtis, Jr.....2327 Lincoln Ave.
Zeier, Mrs. Francis G.....3708 Mulberry
Zimmerman, Mrs. Harold.....513 S. Boeke Rd.

Challman, Mrs. William..502 Walnut, Mt. Vernon
Crist, Mrs. John R.....320 Emmick, Mt. Vernon
Hirsch, Mrs. H. L....801 Williams Dr., Mt. Vernon
Oliphant, Mrs. Frank W.
701 Mulberry St., Mt. Vernon
Vogel, Mrs. John L...530 E. Fifth St., Mt. Vernon
Colvin, Mrs. Robert C.....Peachtree St., Newburg
Durkee, Mrs. Melvin S...R. R. 3, Box 78, Newburgh
Zwickel, Mrs. R. E.....Darby Hills, Newburgh
Ropp, Mrs. Harold E....Church St., New Harmony

VIGO COUNTY

Speas, Mrs. Robert C.....Box 22, Seelyville

Terre Haute

A

Anderson, Mrs. W. C.....380 S. 22nd St.
Ault, Mrs. Roy J.....926 Barton Avenue

B

Bannon, Mrs. William G.....2126 Ohio Blvd.
Benages, Mrs. Anthony G.....2224 Ohio Blvd.
Blum, Mrs. Leon L.....3200 Ohio Blvd.
Bopp, Mrs. Henry W., Sr.....132 Barton Ave.
Bopp, Mrs. Henry W., Jr.....2237 Poplar St.
Bopp, Mrs. James.....236 S. 21st St.
Boyd, Mrs. H. Clark.....651 Oak Dr.
Brown, Mrs. Robert R.....2544 N. Ninth

C-D

CaJacob, Mrs. Melville E.....1000 S. Sixth St.
Caldwell, Mrs. M. V.....R. R. 7, Box 449
Combs, Mrs. Charles N.....Union Hospital
Combs, Mrs. Stuart R.....2620 N. 10th St.
Conforti, Mrs. Victor P.....2540 N. 10th St.
Conway, Mrs. Thomas J.....1014 So. 22nd Street
Crockett, Mrs. Wayne A.....152 Monterey Ave.
Denny, Mrs. E. Rankin.....2718 Wilson Dr.
Dierdorf, Mrs. Fred.....103 S. 23rd St.
Drummy, Mrs. W. W. Jr.....231 Fruitridge
Dyer, Mrs. G. Wallace.....2710 Wilson Dr.

E-F

Freed, Mrs. John E., Sr.....2408 N. 10th St.
Freed, Mrs. John E., Jr.....2425 North 8th St.

G

Gerrish, Mrs. Don A.....R. R. No. 7
Gilbert, Mrs. Ivan.....2641 Crawford St.
Gillotte, Mrs. J. P.....R. R. 7
Goodman, Mrs. Hubert T.....220 Gardendale Rd.
Gossom, Mrs. Donn R.....1904 Ohio Blvd.

H

Haslem, Mrs. Ezra R.....30 Circle Drive
Haslem, Mrs. John R.....2501 Poplar St.
Hogan, Mrs. Thomas W.....332 So. 31st Street
Humphrey, Mrs. Paul E.....2631 N. Ninth St.

J-K

Johnson, Mrs. Paul D. Jr.....3101 Poplar St.
Kabel, Mrs. Robert N.....2201 Ohio Blvd.
Kunkler, Mrs. Arnold W.....147 Monterey Ave.

L

Lancet, Mrs. Robert O.....20 Nitchie Dr.
Lee, Mrs. James C.....12 Thirty-second St.
Loewenstein, Mrs. Werner L.....1909 Ohio Blvd.
Luckett, Mrs. C. L.....R. R. 2
Lyons, Mrs. L. Mason.....123 S. 21st St.

M

McAleese, Mrs. George.....2306 N. 10th St.
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McCrea, Mrs. Fred R.....2517 N. Eighth St.
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Mahoney, Mrs. Charles L.....R. R. 3, Box 172
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Mankin, Mrs. William.....130 S. 20th St.
Mason, Mrs. Lester M.....66 Allendale Place
Mattox, Mrs. Don A.....240 Hamilton Dr.
Mattox, Mrs. Ernest.....240 Hamilton Dr.
Miklozek, Mrs. J. E.....2204 Ohio Blvd.
Miller, Mrs. D. B.....920 So. 6th St.
Mitchell, Mrs. Albert M.....333 S. 22nd St.
Musselman, Mrs. Glenn.....7222 Wabash Avenue

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Neudorff, Mrs. Louis G.....213 Barton Avenue
Oliphant, Mrs. Robert W.....8 31st St. Ct.
Oliphant, Mrs. Wilmer G.....3100 Hulman St.
Pearce, Mrs. Roy V.....269 S. 26th Street Dr.
Pu, Mrs. Pin S.....230 Briarwood Dr.

R

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Reynolds, Mrs. Richard J.....72 Allendale Place
Richart, Mrs. James V.....336 Hamilton Dr.
Rogers, Mrs. Shirrell R.....1101 S. 6th St.
Rubin, Mrs. Milton M.....2401 Ohio Blvd.

S

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T-V

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W-Z

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Weinbaum, Mrs. Jack G.....2705 Oak St.
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White, Mrs. James V.....1227 S. Sixth St.
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Ake, Mrs. Loren.....220 S. 18th St.
Allen, Mrs. Robert T.....212 S. 21st St.
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Buche, Mrs. Frederick P.....2408 S. "E" St.
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Cook, Mrs. Norman R.....2245 S. B. St.
Cox, Mrs. Leon T.....10 Clifton Rd.
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Daggy, Mrs. James R.....2422 S. "D" St.
Dingle, Mrs. Paul E.....206 S. 32nd St.
Dreyer, Mrs. Ralph W.....410 S. W. "F" St.
Ebbinghouse, Mrs. Tom....Spring Grove Heights
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Hagie, Mrs. Franklin.....Backmeyer Rd.
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Warrick, Mrs. Francis B.....2106 South "B" St.
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Eisaman, Mrs. Jack L.....1011 Riverview Dr.

Huffman, Mrs. Galen.....1000 Summit Ave.
Jackson, Mrs. Charles E.....1012 Riverview Dr.
Kephart, Mrs. Bruce .....910 Riverview Dr.
Meier, Mrs. Donald W.....1205 Summit Ave.
Milroy, Mrs. Robert.....1010 Summit Ave.
Panos, Mrs. Pat.....Kemp Rd.
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Netherton, Mrs. C. R.....Chalmers
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Carney, Mrs. John.....116 N. Illinois St.
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Vogel, Mrs. John L.....Grove Park
Waite, Mrs. Jerome H.....R. R. 5
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Mishler, Mrs. Joseph B.....Pierceton
Stalter, Mrs. Gaylord W.....North Webster
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Huffman, Mrs. Park..701 State St., South Whitley
Johanyar, Mrs. Ali.....Box 96, South Whitley

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Kantzer, Mrs. Floyd B.
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Maris, Mrs. Lee J.
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Madison State Hospital, Madison, Jefferson-Switzerland
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1½ E. National, Brazil, Clay

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Mount, Mrs. Mathias S.
340 W. Mechanic, Worthington, Greene
Omstead, Mrs. Milton
1105 6th St., Petersburg, Pike
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290 N. Wabash, Wabash, Wabash
Person, Mrs. Theodore C.
600 N. Main, Veedersburg, Fountain-Warren
Petrich, Mrs. P. R.
409 E. Washington, Attica, Fountain-Warren
Pratt, Mrs. Ralph M.
2325 Blackmore Pl., Madison, Jefferson-Switzerland
Rang, Mrs. Arthur A.
211 N. E. 9th St., Washington, Daviess-Martin
Raymundo, Mrs. Viviano
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Rohrer, Mrs. James R.....Elnora, Daviess-Martin
Rotman, Mrs. Sam
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Schrepferman, Mrs. Wayne.....Hamilton, Steuben
Scott, Mrs. Irvin H.
30 W. Washington, Sullivan, Sullivan
Sears, Mrs. Don A.
302 E. Main, Odon, Daviess-Martin
Seat, Mrs. Marshall H.
310 Hefron, Washington, Daviess-Martin
Seward, Mrs. George W.
201 W. Main, N. Manchester, Wabash
Sloan, Mrs. W. Keith..340 Bunton Lane, Madison, Jefferson-Switzerland
Smith, Mrs. Lloyd H.
R. R. 2, Briarwood Add., N. Manchester, Wabash
Souder, Mrs. Bonnell M.
206 W. 7th St., Auburn, DeKalb
Stephens, Mrs. Lowell R.
600 E. Liberty St., Covington, Fountain-Warren
Stoops, Mrs. Jean T.
563 N. Miami, Wabash, Wabash
Stouder, Mrs. Albert E.....Kempton, Tipton
Thompson, Mrs. William R.....Winamac, Pulaski
Tranter, Mrs. W. F.
4 E. Walnut St., Sharpsville, Tipton
Turner, Mrs. Jack J.
227 W. Main St., Bloomfield, Greene
Weaver, Mrs. Timothy M.....R. R. 2, Brazil, Clay
Webster, Mrs. Robert K.
25 N. Beech St., Brazil, Clay
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502 Broadway, Madison, Jefferson-Switzerland

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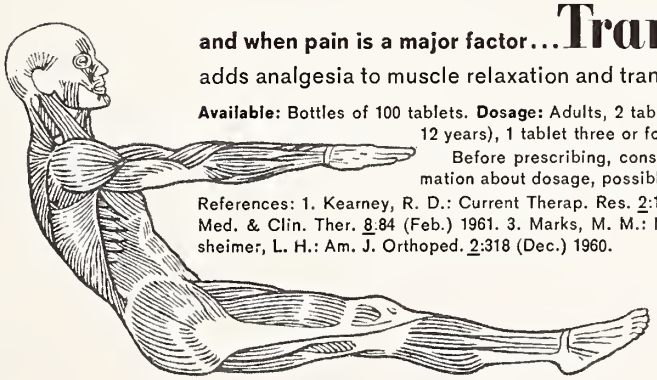
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Low back pain and other skeletal muscle spasms are tractable disorders when you treat them with Trancopal, the relaxant that quickly eases the spasm and gets the muscle moving. You have a more tractable patient with Trancopal, too —its mild tranquilizing action makes him less irritable, better able to bear his discomfort, more willing to cooperate in physiotherapy.

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Available: 200 mg. Caplets® (green colored, scored), 100 mg. Caplets (peach colored, scored), each in bottles of 100. **Dosage:** Adults, 200 mg. three or four times daily; children (5 to 12 years), from 50 to 100 mg. three or four times daily.



and when pain is a major factor... ***Trancoprin***® ASPIRIN (5 GRAINS) 300 MG. TRANCOPAL ..... 50 MG.

adds analgesia to muscle relaxation and tranquilization

Available: Bottles of 100 tablets. **Dosage:** Adults, 2 tablets three or four times daily; children (5 to 12 years), 1 tablet three or four times daily.

Before prescribing, consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.

References: 1. Kearney, R. D.: Current Therap. Res. 2:127 (April) 1960. 2. Cornbleet, T.: Antibiotic Med. & Clin. Ther. 8:84 (Feb.) 1961. 3. Marks, M. M.: Missouri Med. 58:1037 (Oct.) 1961. 4. Hergesheimer, L. H.: Am. J. Orthoped. 2:318 (Dec.) 1960.

Winthrop LABORATORIES
New York 18, N.Y.

1696M

DISEASE PREVENTION by Immunization and Chemoprophylaxis*

Disease	*Agent Used*	*Recommended For*	*Method of Administration*	*Type of Immunity*	*Duration of Protection*	*Booster Injection*
Chalera	Chalera Vaccine	Adults	—0.5 cc. subcutaneausly fallawed by 1.0 cc. in 7 days.	Active	6 manths	0.12-1.0 cc. accarding ta age every six manths in endemic areas.
		Children: 6 manths ta 2 years 3-6 years 7-10 years 11 years and alder	Three subcutaneaus injectians given 7-10 days interval. (1) 0.06 cc.; (2) 0.12 cc.; (3) 0.12 cc. (1) 0.12 cc.; (2) 0.25 cc.; (3) 0.25 cc. (1) 0.25 cc.; (2) 0.5 cc.; (3) 0.5 cc. Adult schedule			
Diphtheria	Diphtheria Antitoxin	All early cases	Usually intramuscular if seen within 48 haurs of anset. *Warning:* Test far sensitivity to horse serum. May be used intravenausly in severe nasapharynx cases. Dasage dependent an degree af taxicity rather than age and weight. 10,000 units ta 75,000 units.	Passive	Short	Additianal antitoxin given dependent upan illness and taxicity.
Diphtheria	Diphtheria Taxaid (fluid ar alum precipitated ar aluminum phasphate adsarbed, far adult use)	Children alder than 11 years and adults	Two intramuscular injectians af 0.5 cc. each, faur ta six weeks apart far primary immunizatian ar if individual has nat had a baaster dase af vaccine for 3 years.	(If taxaid is given then active immunity develaps.)	Indefinite	0.5 cc. every year.
Diphtheria	Diphtheria-Pertussis-Tetanus alum precipitated ar aluminum hydraxide (or aluminum phosphate) adsarbed diphtheria and tetanus taxoids; cantaining 12 pratective antigenic units af vaccine per 1.5 cc. (DPT)	Children under 5 years	(1) First dase af 0.5 cc. deep intramuscularly—fallaw injectian with 0.1-0.2 cc. air. Given 1-3 manths age. (2) Secand dose of 0.5 cc. deep intramuscularly one month after first dose. (3) Third dase af 0.5 cc. deep intramuscularly ane manth after 2nd dase. (4) If 1st dase given earlier than 3 manths af age, then give faurth dase 2-3 manths after series completed.	Active	Indefinite	D. P. T. baaster of 0.5 cc. at 12 to 18 manths and 4-5 years. After 5 years baaster dase of 0.5 cc. Diphtheria Tetanus Taxaid every 3 years ta age 11 years.
Diphtheria	Diphtheria Tetanus Taxaid alum precipitated or aluminum hydroxide (or aluminum phasphate) adsarbed.	Children aver 5 years and up ta 10 years	(1) First dase af 0.5 cc. deep intramuscularly, fallaw injectian with 0.1-0.2 cc. air. (2) Secand dase af 0.5 cc. deep intramuscularly—fallaw injectian with 0.1-0.2 cc. air.	Active	Indefinite	Diphtheria Tetanus baaster 0.25 cc. ta 0.5 cc. *Caution:* Do nat give ta children past 10 years of age.
Diphtheria	Diphtheria Taxaid Pertussis Vaccine Tetanus Toxaid Fluid	Rapid immunization of children under 10 years	Three dases of 0.5 cc. given subcutaneausly at intervals of 3-4 weeks. In face of epidemic injectians may be given at one week intervals.	Active	Antigenic respanse lawer than with the alum preparations and does nat last as long.	0.5 cc. every 2 years.

Diphtheria	Diphtheria Toxoid Tetonus Toxoid Fluid	Rapid immunizotion under 10 years	Three doses 0.5 cc. given subcutoneously at intervals of 3-4 weeks. In face of epidemic injections may be given at intervols of one week.	Active	Antigenic response lower thon with olum preparations ond does not last as long.	0.5 cc. every 2 years.
Hepatitis, Infectious (Epidemic)	Immune Serum Globulin (Gomma Globulin)	All exposed in household, institution, etc.	Dosage: 0.01 cc. per pound of body weight. Given intromuscularly.	Possive	Brief	Repeot each exposure.
Influenza	Polyvolent Vaccine	Use during epidemics		Active (in 70% + immunized)	Short: 3-4 months	Repeat primary injection ond/or injections onnuolly.
		Children	Give total of 1.0 cc. in the course of one week.			
		Adults—especiolly oll with chronic debilitoting diseose of heart and lungs.	1.0 cc. subcutoneously. *Warning:* Precoutions must be taken in individuals sensitive to egg protein. *(Note:* There is less chance of local or systemic reaction if only 0.1 cc. is given intradermoily for o totol of 2 doses 7-10 doys oport).			
Meosles (Rubeolo)	Immune Serum Globulin (Gomma Globulin)	Complete possive immunity children under one yeor; children ill with chronic diseose or healthy child whose siblings are ill with chronic diseose	Dosage 0.2 cc. per pound of body weight given prior to 6th day ofter exposure. Given intramusculorly.	Possive	Very brief	Repeot eoch exposure.
		Incomplete immunity or modificotion in oll other children	Dosoge 0.05 cc. per pound of body weight before 6th doy ofter exposure; if given ofter 6th doy use dose of 0.1 cc. per pound of body weight. Given intromusculorly.	Portiol possive. Child has modified disease and develops active immunity	For life if diseose was modified and not prevented.	
Meosles, German (Rubello)	Immune Serum Globulin (Gomma Globulin)	Pregnant femoles exposed during the first trimester	Dosoge: 0.1 cc. per pound of body weight. Given intromuscularly.	Possive	Very brief	Repeat each exposure if pregnont.
Meningococcic Meningitis	Sulfodiozine	Control of exposed persons in community groups Children up to 11 yrs.	0.5 m. twice doily for 2 doys.	None Chemical prophyloxis only	Very brief—for one exposure only.	Repeot following eoch exposure.
		Adults (ond children 12 yrs. or over)	1.0 gm. twice doily for 2 doys.			
Mumps	Mumps Voccine	Adults exposed to cose ond with negative history of hoving hod mumps	*Warning:* Check on sensitivity to egg protein. Two injections given 5 to 10 days aport of 1.0 cc. eoch subcutoneously.	Active	Brief	Previously immunized persons may be given booster dose of 0.5 to 1.0 cc. subcutaneously.

Disease	Agent Used	Recommended For	Method of Administration	Type of Immunity	Duration of Protection	Booster Injection
Pertussis	Pertussis Voccine soline suspended (See Double and Triple antigens under "Diphtherio")	Children during epidemic	A tatol af 12 N. I. H. units divided inta 3 equol dases af 4 N. I. H. units (0.5 cc.) given subcutoneausly ot intervols of one week.	Active	Indefinite	1 yeor after primory series, 2 yeors ofter primory series ond then every three years to 6 ar 7 years of oge.
	Pertussis Vaccine alum precipitated ar aluminum hydraxide adsarbed (See Dauble ond Triple antigens under "Diphtherio")	Rautine immunization af infants when DPT is cantraindicated	A tatal af 12 N. I. H. units divided into 3 equol dases af 4 N. I. H. units eoch (0.5 cc.) injected intramusculorly at intervals of 4 to 6 weeks.	Active	Indefinite	18 manths—3-4 yeors. 6-7 years usuolly given os DPT.
		Expasure Recall		Active	Indefinite	4 NIH units (0.5 cc.) soline suspensian subcutoneausly if child hos not had immunizatian past 2 yeors.
Plague	Plogue Vaccine—o suspensian of 2000 million killed Posteurello per milliliter	Epidemics ond oreos with high endemic rate. Adults: Children: 6 manths-2 yeors 2 yeors-6 years 6 years-10 years	Twa injectians subcutaneously 7-10 days oport. First injectian 0.5 cc.; secand, 1.0 cc. 0.06 cc.; 0.12 cc; 0.12 cc. 0.12 cc.; 0.25 cc.; 0.25 cc. 0.25 cc.; 0.50 cc.; 0.50 cc.	Active Active	Portiol protection far periad of 4-6 mas. Portial pratectian far periad af 4-6 mas.	1.0 cc. every 4 months as lang os donger of epidemic exists. Baoster dase far children is some os first dase af initiol series.
Poliomyelitis	Paliomyelitis (Salk) Voccine	All Ages	Two injections eoch 1.0 cc. given intramuscularly ot interval af 3-6 weeks. Third injectian af 1.0 cc. given 7 manths after secand.	Active	Nat knawn (Solk has demanstrated odequate ontibadies present ofter 8 yeors)	Baaster dase of 1.0 cc. recammended 8 to 12 manths ofter 3rd dase. Additianol baoster dases advised if in epidemic areo.
Rabies	Rabies—hyperimmune serum 1000 units per paund af bady weight Rabies Vaccine 7-14 doses	*Licks* af abraded skin ar mucasa by praven rabid, suspiciaus, escoped, killed ar unknawn animal	Hyperimmune serum within 24-72 haurs of expasure. Fallaw within 24 haurs with Rabies Voccine.	Passive immunity fram hyperimmune serum	Few weeks	Repeot initiol dase hyperimmune serum, but nat ofter beginning Rabies Vaccine series as serum will black ontibody praductian.
		Bites af healthy animal, multiple, or face ar heod bites	Hyperimmune serum. Stort vaccine but stap if onimol remoins narmol for 3 days.	Active immunity from robies vaccine	Indefinite	Robies vaccine prepared occarding to Semple methad—shauld nat repeot full caurse—ane to 3 injectians probobly sufficient. More hozardous Egg embryo voccine—give ane injectian.
		Bite af healthy animal, other thon head or neck	No treotment. If onimol becames suspicious during 14 doys observatian give serum ond voccine at first suspiciaus signs.			

		Bites—animal rabid, escaped, killed, unknown or any bites by any wild animal	Start treatment immediately, using hyperimmune serum followed by 7-14 doses vaccine, depending upan whether single or multiple bites and locotion.			
		Bot bites and exposure to bots	Start treotment with Robies Vaccine immediotely without woiting for Laboratory Report. Bots ore only animals known to occosionolly survive robies and remain corriers.			
Rocky Mauntain Spotted Fever	Racky Mauntoin Spotted Fever Voccine	Not routinely recommended since advent af specific antibiotic therapy. Moy be used in areos af high incidence among persons of high risk.	Adults: 3 injections each 1.0 cc. subcutoneously or intromuscularly at intervals of ane week. Children—under 10 yeors three injections each 0.5 cc. subcutaneously or intromusculorly ot intervols of one week.	Active	One yeor	1.0 cc. booster annually
Smallpox	Smollpox Vaccine (Voccinia virus)	Children and odults	Begin at 5-12 months. Administered by multiple pressure technique skin over insertion af left deltoid.	Active	Indefinite, averoge 3 yeors	Repeat every 4th yeor.
Tetonus	Tetonus Antitoxin	All coses of puncture waunds and animol bites when person has not been immunized or more than 2 years since last booster.	Cautian: Skin test first for serum sensitivity. Intramusculor injection af 10,000 units antitoxin.	Passive	10 days	Repeat with each injury. Because af hazord ta horse serum active immunization with toxoid preferred.
	Tetonus Taxoid, depot (olum precipitoted or odsorbed) (See Double and Triple antigens under "Diphtheria")	All	Twa doses, each 0.5 cc. given intromuscularly, at least one and preferobly 2-3 manths interval.	Active	At leost 4 yeors	0.5 cc. end first year, then—baaster every 2-4 years. Satisfoctory recall response ofter 10 yeors but is toa slaw in case af injury. Emergency booster if injured.
	Tetanus Toxoid, Fluid (See Double ond Triple antigens under "Diphtheria")	All	Three doses, each 0.5 cc., subcutaneoulsy ar intromusculorly at ane month and preferably 2-3 months between doses.	Active	At least 4 years	0.5 cc. end first year, then—booster every 2-4 years. Sotisfactory recoll response after 10 yeors but is taa slaw in case af injury. Emergency booster if injured.

Disease	Agent Used	Recommended For	Method of Administration	Type of Immunity	Duration of Protection	Booster Injection
Typhoid Fever	Typhoid Vaccine Triple vaccine contoining 1000 million S. typhosa ond 250 million each af paro-typhoid A and B per cc.	All persons living in or troveling to areos where diseose is endemic ar insanitory conditions exist.	*Adults* Three doses, each 0.5 cc. subcutoneously not less than 7 doys or more than 28 day intervals between doses. An alternate method is: 0.1 cc.; 0.15 cc. and 0.2 cc. given intradermally nat less thon 7 nor mare thon 28 days between doses. *Children* 6 mo.-2 yr.—(1) 0.06 cc.; (2) 0.12 cc.; (3) 0.12 cc. 2 yr.- 6 yr.—(1) 0.12 cc.; (2) 0.25 cc.; (3) 0.25 cc. 6 yr.-10 yr.—(1) 0.25 cc.; (2) 0.50 cc.; (3) 0.50 cc.	Active	Indefinite—usually at least one year	Persons traveling ar living in insonitory areos should receive baoster af 0.1 cc. intradermally ar 0.5 cc. subcutoneously annually. Children's onnual boaster the some dose as initial dose af each series.
Typhus Fever	Typhus Fever Voccine	All persons traveling to or living in areas where epidemic typhus exists.	*Adults* Two doses, each 1.0 cc. at intervals of 7-10 doys given subcutaneausly. Allergy to egg or chicken protein only controindicotion. *Children* Three doses eoch: 6 mos.-2 yrs.: 0.12 cc. 2 yrs.- 6 yrs.: 0.25 cc. 6 yrs.-10 yrs.: 0.50 cc.	Active	Relotive 3-6 months	*Adults* Routine every 6 months dose af 1.0 cc. given subcutoneously ar whenever threat of autbreok accurs. *Children* Some dose as in initiol series.
Yellow Fever	Yellow Fever Voccine* (Obtoinoble only at U. S. P. H. S. Hospital ar Yellow Fever Immunizotion Depots. See footnote where obtoinoble in Indiano.)	All persons traveling in or thraugh ar living in endemic areas. Should receive voccine 10 doys before arrival in orea.	One dose 0.5 cc. of a 1:10 dilution of concentroted voccine, freshly prepored. Given subcutoneously. Should not be given ta persan ill with virus diseose or ot same time cawpax virus is given. Children's dase—some as odult.	Active	6 yeors or longer	As required at present every 6 years repeat immunizotion. In presence af epidemic repeat primary immunizotion.

*While many contraindications are listed for various biologicals it should be recognized that in the interest of brevity it was impossible to give all details. In case of doubt consult standard reference for detailed description of biological in question and/or pharmaceutical company's circular accompanying original package of biological.

All of the biologicals listed may be obtained through normal supply channels with the exception of Yellow Fever Vaccine. Because of hazards if yellow fever vaccine is improperly handled it can only be obtained from U. S. P. H. S. depots. In Indiana this depot is:

Indiana University Medical Center
1040 West Michigan Street
Indianapolis
Fridays, 11 a.m. to 12 noon CDT by appointment
Telephone: MElrose 5-8441, Ext. 2511; 2512

Elkhart County Health Department
200 Harrison Street
Elkhart, Indiana
1st or 3rd Wednesday each month 2 p.m.
Telephone 26525

Physicians having patients requiring yellow fever immunization should advise person to call or write the above, as inoculations are given by appointment only on one day a week. There is a fee to cover vaccine and administration.

(Revised)

A. L. Marshall, Jr., M.D., *Director*
Division of Communicable Disease Control
Indiana State Board of Health

Digestant needed?

Cotazym-B provides the most potent pancreatic enzyme action available!

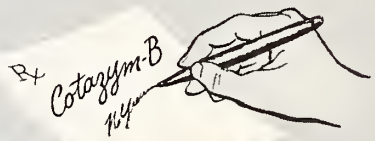
Cotazym-B supplies

12 TIMES GREATER FAT-SPLITTING LIPASE (STEAPSIN) ACTIVITY THAN PANCREATIN N.F.[1]

7 TIMES GREATER STARCH-DIGESTANT AMYLASE (AMYLOPSIN) ACTIVITY[2]

5 TIMES GREATER PROTEIN-DIGESTANT PROTEINASE (TRYPSIN) ACTIVITY[2]

– PLUS BILE SALTS TO AID IN DIGESTION OF FAT, AND CELLULASE TO AID IN DIGESTION OF FIBROUS VEGETABLES



COTAZYM-B is a new comprehensive digestant containing bile salts, cellulase and *lipancreatin* for supplementing deficient digestive secretions and helping to restore more normal digestive processes. *Lipancreatin*—"the most potent pancreatic extract available"[3]—is a concentrated pancreatic enzyme preparation developed by Organon.[4] It has been clinically proven to be an effective agent for treating digestive disorders of enzymatic origin.[1,4,5,6,7,8] COTAZYM-B is indicated for the symptomatic relief of dyspeptic or functional digestive disturbances characterized by bloating, belching, flatulence and upper abdominal discomfort.

Dosage: 1 or 2 tablets with water just before each meal.

Organon

REFERENCES: 1. Best, E. B., Hightower, N. C., Jr., Williams, B. H., and Carobasi, R. J.: South. M.J. 53:1091, 1960. 2. Analytical Control Laboratories, Organon Inc. 3. Best, E. B., et al.: Symposium at West Orange, N. J., May 11, 1960. 4. Thompson, K. W., and Price, R. T.: Scientific Exhibit Section, A.M.A., Atlantic City, N. J., June 8-12, 1959. 5. Weinstein, J. J.: Discussion in Keifer, E. D., Am. J. Gastro. 35:353, 1961. 6. Ruffin, J. M., McBee, J. W., and Davis, T. D.: Chicago Medicine, Vol. 64, No. 2, June, 1961. 7. Berkowitz, D., and Silk, R.: Scientific Exhibit Section, A.M.A., New York, June 25-30, 1961. 8. Berkowitz, D., and Glassman, S.: N. Y. St. J. Med. 62:58, 1962.

ORGANON INC., WEST ORANGE, NEW JERSEY

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Lipancreatin Bile Salts Cellulase

Class A Narcotic Drugs

The following is a compilation of Class A Narcotic Drugs by Trade Name prepared by L. C. Heustis, Executive Secretary of the Indiana Pharmaceutical Association for publication. It is designed to aid physicians in determining the proper and legal methods of prescribing narcotics. A pharmacist is required by law to have in hand a properly completed prescription prior to the dispensing of any of the Class A narcotics. No verbal or phoned prescriptions are permitted in Class A.

Package	Class A Narcotics by Trade Name
Tab.	A.P.C. Demerol (Demerol 30 mg.)
Supp.	B&O 15A (Opium ½ gr., Belladonna ¼ gr.)
Supp.	B&O 16A (Opium 1 gr., Belladonna ¼ gr.)
	Chlor-Anodyne (Morphine Hcl. 2⅞ gr. per oz.)
	Cocaine Solutions
Solvets	Cocaine Hcl. 2¼ gr.
Amp.	Codeine Phos. ½ gr. per cc.
H.T.	Codeine Phos. ¼ gr.
H.T.	Codeine Phos. ½ gr.
H.T.	Codeine Phos. 1 gr.
D.T.	Codeine Sulf. 1 gr.
H.T.	Codeine Sulf. ⅛ gr.
H.T.	Codeine Sulf. ¼ gr.
H.T.	Codeine Sulf. ½ gr.
H.T.	Codeine Sulf. 1 gr.
T.T.	Codeine Sulf. ¼ gr.
T.T.	Codeine Sulf. ½ gr.
T.T.	Codeine Sulf. 1 gr.
	Codeine, if more than 8 grs. per fl. oz. or more than 1 gr. per dosage unit
	Demerol Solutions
Amp.	Demerol 25 mg.—½ cc.
Amp.	Demerol 50 mg.—1 cc.
Amp.	Demerol 75 mg.—1½ cc.
Amp.	Demerol 100 mg.
Amp.	Demerol Atropine 2 cc. (Demerol 100 mg—2 cc.)
Amp.	Demerol Scopolamine 2 cc. (Demerol 100 mg—2 cc.)
Elix.	Demerol (Demerol 50 mg. per 5 cc.)
	Demerol Disp. Syr. 50 mg.—1 cc.
	Demerol Disp. Syr. 75 mg.—1 cc.
	Demerol Disp. Syr. 100 mg.—1 cc.
Tab.	Demerol 50 mg.
Tab.	Demerol 100 mg.
Vial	Demerol 50 mg. per cc.
Vial	Demerol 100 mg. per cc.
Vial	Demerol Scopolamine (Demerol 50 mg. per cc.)
Tab.	Demerol APAP (Demerol 50 mg.)
Tab.	Demerol Comp. (Demerol 25 mg.)
Tab.	Demerol Lotusate (Demerol 100 mg.)
Tab.	Dicodid 5 mg.
Amp.	Dilaudid Hcl. 1/32 gr.—1 cc.
Amp.	Dilaudid Hcl. 1/20 gr.—1 cc.
Amp.	Dilaudid Hcl. 1/16 gr.—1 cc.
Rect. Supp.	Dilaudid Hcl. 1/20 gr.
Syr.	Dilaudid (1 mg.—5 cc.)
	Dilaudid Hcl. Solutions
H.T.	Dilaudid Hcl. 1/64 gr.
H.T.	Dilaudid Hcl. 1/32 gr.
H.T.	Dilaudid Hcl. 1/20 gr.
H.T.	Dilaudid Hcl. 1/16 gr.
Vial	Dilaudid Sulf. 2 mg. per cc.
	Dionin Solutions
Amp.	Dolophine Hcl. 10 mg.—1 cc. (Methadone Hcl.)
20 cc. Amp.	Dolophine Hcl. 10 mg. per cc.
Syr.	Dolophine Hcl. (Methadone Hcl. 10 mg. per 30 cc.)
Tab.	Dolophine Hcl. 5 mg.
Tab.	Dolophine Hcl. 7.5 mg.
Tab.	Dolophine Hcl. 10 mg.
Tab.	Donnagesic #2 (Codeine Phos. 1½ gr.)
	Dover's Po. N.F. (Po. Ipecac and Opium)
H.T.	H.M.C. #1 (Morphine HBr. ¼ gr.)
H.T.	H.M.C. #2 (Morphine HBr. ⅛ gr.)
	Hycodan Po.
10 cc. Vial	Hymorphan Hcl. 2 mg. per cc.

Package	Class A Narcotics by Trade Name
10 cc. Vial	Hymorphan Hcl. 2 mg. per cc. Atropine Sulf. 0.25 mg. per cc.
Amp.	Leritine 1 cc., 25 mg. per cc.
Amp.	Leritine 2 cc., 25 mg. per cc.
Tab.	Leritine 25 mg.
30 cc. Vial	Leritine 25 mg. per cc.
Amp.	Levo-Dromoran 2 mg.—1 cc.
Tab.	Levo-Dromoran 2 mg.
10 cc. Vial	Levo-Dromoran 2 mg. per cc.
Tubex	Meperidine Hcl. 50 mg.—1 cc.
Tubex	Meperidine Hcl. 75 mg.—1 cc.
Tubex	Meperidine Hcl. 100 mg.—1 cc.
Tubex	Mepergan 25—50 mg. per 2 cc.
10 cc. Vial	Mepergan 25—25 mg.—1 cc.
Tubex	Mepergan 50—50 mg.—1 cc.
10 cc. Vial	Mepergan 50—50 mg.—1 cc.
100 Tab.	Mercodinone
20 cc. Vial	Methadone Hcl. 10 mg. per cc.
30 cc. Vial	Methadone Hcl. 10 mg. per cc.
Syr.	Methajade
	Morphine Acetate
Elix.	Morphine Hcl. 1 gr. per fl. oz.
	Morphine Solutions
Amp.	Morphine Sulf. ¼ gr. per cc.
Amp.	Morphine Sulf. ¼ gr., Atropine Sulf. 1/150 gr. per cc.
H.T.	Morphine Sulf. ⅛ gr.
H.T.	Morphine Sulf. 1/6 gr.
H.T.	Morphine Sulf. ¼ gr.
H.T.	Morphine Sulf. ½ gr.
H.T.	Morphine Sulf. 1 gr.
H.T.	Morphine Sulf. ¼ gr., Atropine Sulf. 1/150 gr.
T.T.	Morphine Sulf. ¼ gr.
Amp.	Nisentil Hcl. 40 mg.—1 cc.
Amp.	Nisentil Hcl. 60 mg.—1 cc.
Vial	Nisentil Hcl. 60 mg. per cc.
Tab.	Nodalin (Methadone Hcl. 2.5 mg.)
Amp.	Numorphan Hcl. 1 cc. (1.5 mg per cc.)
Amp.	Numorphan Hcl. 2 cc. (1.5 mg. per cc.)
10 cc. Vial	Numorphan Hcl. (1.5 mg. per cc.)
Supp.	Numorphan Hcl. 2 mg.
Supp.	Numorphan Hcl. 5 mg.
	Opium Po.
	Opium Po. Extract
Rect. Supp.	Opium 1 gr. Belladonna ¼ gr.
Tr.	Opium U.S.P. Deod.
	Pantopon All
	Papine
Amp.	Prinadol 2 mg. 1 cc.
10 cc. Vial	Prinadol 2 mg. per cc.
Amp.	Spasmalgin 1 cc. (Pantopon 1/6 gr. Papaverine Hcl. 1/3 gr. 1 cc.)
Tab.	Spasmalgin (Pantopon 1/6 gr. Papaverine Hcl. 1/3 gr.)
Cap.	Synalgos DC (Dihydrocodeine 16 mg.)

*The 4 Narcotic Classes**

The Karsten narcotic law, which became effective January 1, 1961 has resulted in the division of all narcotic drugs as follows:

CLASS A—This is the old, original basic narcotic drug class, used to control products that have addiction liability. Preparations in this class are subject to the strictest controls all the way down the line. Examples would include Cocaine, Dolophine, Demerol, Morphine, Pantopon, etc. They cannot be dispensed without a written prescription, and, of course, cannot be refilled.

CLASS B—This group was established a few years ago when Congress authorized oral prescriptions for a limited group of narcotic drug-preparations. Included in this class are: Apomorphine, A. S. A. and Codeine Compounds, Copavin, Cotarnine, Dihydrocodeinone, Narcotine and Narceine. Dihydrocodeinone was transferred to this group from Class X and is no longer exempt.

CLASS X—This is the category of so-called exempts—narcotic preparations found by the federal narcotics bureau to have only a slight addition liability. Narcotic form order is not required.

CLASS M—This is the new control group, created under the Karsten law. Drugs in this class have no addiction liability, or less liability than those in Class X. Narcotic order not required. This class was created by transferring preparations into it from Class B: combinations of non-narcotic ingredients with narcotine, papaverine, narceine, or cotarnine. However, pure narcotine, papaverine, narceine, cotarnine, and their salts remain as Class B drugs, to be dispensed only on prescription.

Watch the new labels. ◄

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Deaths of Indiana Physicians in 1961

Compiled by James B. Maple, M.D., Necrologist

(M) Member I.S.M.A.; (S) Senior Member; (R) Retired

Name	Age	Date of Death	Address	Cause of Death
Gardiner, John P.	84	Jan. 12	Toledo, Ohio	Cancer of pancreas
Welty, Scudder G. (M)	65	Jan. 17	Ft. Wayne	Myocardial infarction
Dollens, Claude (S)	80	Jan. 22	Oolitic	Cancer of the prostate
Woods, Charles S.	83	Jan. 27	Indianapolis	Acute myocardial infarction, diabetes mellitus
Brubaker, Ora G. (S)	85	Jan. 28	North Manchester	Coronary insufficiency, cerebral hemorrhage
Warner, Elmer	81	Jan. 30	Petroleum	C.V.R.D.
Bishop, Charles A. (M)	65	Feb. 1	South Bend	Skull fracture from fall down steps
Koch, F. Phillip (R)	55	Feb. 2	Indianapolis	Gastrointestinal hemorrhage. Duodenal ulcer
Sharp, John L. (M)	54	Feb. 4	Crawfordsville	Coronary occlusion, hypertension
Johnson, Paul S. (S)	81	Feb. 6	Richmond	Bronchopneumonia
Herring, George N. (M)	70	Feb. 8	Richmond	Coronary occlusion
Green, John H. (S)	74	Feb. 14	North Vernon	Coronary occlusion. C.V.R.D.
Stafford, James C.	79	Feb. 15	Plainfield	Acute coronary occlusion. Coronary sclerosis
Warvel, Joseph L. (S)	95	Feb. 16	North Manchester	Myocardial insufficiency
Baitinger, Herbert M. (M)	63	Feb. 18	Gary	Massive coronary thrombosis
Decker, Harvey B. (M)	70	Feb. 22	Terre Haute	Cerebrovascular accident. Generalized arteriosclerosis
Whitsitt, Schuyler A. (S)	92	Feb. 26	Madison	Cerebral thrombosis
Wyatt, James L. (M)	67	Feb. 27	Ft. Wayne	Coronary occlusion. A.H.D.
Kelly, Walter F. (S)	87	Mar. 1	Indianapolis	A.H.D.
Jeffries, Kenneth I. (S) (R)	81	Mar. 3	Indianapolis	Pulmonary emphysema
Hazinski, Robert T. (M)	47	Mar. 12	Gary	Plane crash
Brooks, Harry L. (M)	67	Mar. 14	Michigan City	A.H.D.
Allison, William F. (R)	79	Mar. 15	Indianapolis	Cerebrovascular accident
Habich, Carl (S)	73	Mar. 16	Indianapolis	Metastatic carcinoma of abdomen. Carcinoma of stomach
Boren, Samuel W. (S) (R)	93	Mar. 22	Poseyville	Acute coronary occlusion. Generalized arteriosclerosis
Benninghoff, Daniel R. (S)	72	Mar. 28	Ft. Wayne	Coronary thrombosis
Cook, Norman R. (M)	55	Mar. 30	Richmond	Myocardial infarction. Right coronary artery thrombosis
Childs, Alpha G. W. (S)	89	Mar. 30	Madison	Myocardial failure, arteriosclerotic senility
Richer, Orville H. (M)	69	Apr. 1	Warsaw	Acute coronary occlusion
Piper, Mark M.	59	Apr. 2	Westville	Endocarditis and myocardial decompensation
Hester, Laura Mace	87	Apr. 3	Scottsburg	Chronic myocarditis
Johnson, William F. (S)	79	Apr. 9	Clermont	Myocardial infarction
Mitchell, Edgar T. (S) (R)	81	Apr. 14	Romney	Acute coronary thrombosis
Fisher, Frank E.	62	Apr. 26	Crawfordsville	Myocardial infarction, A.H.D.
Nafe, Cleon A. (M)	69	Apr. 29	Indianapolis	Polyarteritis nodosa
Wood, Russell W. (M)	54	Apr. 30	Oakland City	Acute myocardial infarction
Richards, David H. (S)	90	May 9	Vincennes	Cerebral hemorrhage
Clancy, James F. (M)	61	May 11	Hammond	Osteogenic sarcomatosis. Padget's disease
Thornburg, Kenneth E. (M)	55	May 15	Indianapolis	Myocardial infarction. Acute coronary occlusion
Pearlman, Samuel D. (S)	80	May 16	Lafayette	Coronary occlusion
Fey, Charles W.	46	May 21	Bedford	Multiple embolic infarcts of the left parietal lobe
Sloan, LeRoy H.	68	June 2	Michigan City	Coronary occlusion
Rhea, James C. (M)	63	June 3	Beech Grove	Myocardial infarction
Sandock, Isadore (M)	69	June 4	South Bend	Cerebral hemorrhage. Essential hypertension

Name	Age	Date of Death	Address	Cause of Death
Smoots, Samuel A. (S)	81	June 14	Terre Haute	Chronic passive congestive A.H.D. Auto wreck
Pitkin, Edward M.	68	June 17	Martinsville	Acute congestive heart failure. Chronic A.H.D.
Hurley, Anson G. (M)	51	June 24	Muncie	Plane crash
Pomeroy, Rex K.	58	June 27	Ft. Wayne	Myocardial infarction. A.H.D.
Durrie, Anna Bell	86	June 28	Michigan City	Hypostatic pneumonia. Fracture of right femur
Johnson, Gardner C. (S) (R)	89	June 30	Evansville	Cerebrovascular accident
Caldwell, Wm. C. (S)	73	July 3	Evansville	Adenocarcinoma of sigmoid colon with metastasis
Freed, James C.	71	July 9	Attica	Carcinoma of left hand with metastasis
Bogmenko, Leon T. (M)	68	July 10	Madison	Myocardial infarction. Coronary thrombosis
Williams, George D.	63	July 14	Logansport	Inquest held, no verdict
Rentschler, Lewis C. (S) (R)	73	July 15	Clay City	Coronary occlusion
Reed, Donald (M)	60	July 18	Culver	Congestive heart failure. Coronary insufficiency
Hetherington, Arthur M. (S) (R)	80	July 22	Indianapolis	Acute myocardial failure. Cerebral hemorrhage
Beilke, Clifford A. (M)	42	July 22	East Chicago	Cardiac arrest, coronary occlusion
Baldridge, William O. (M)	57	Aug. 9	Terre Haute	Acute coronary thrombosis
Walker, William H.	94	Aug. 13	Portland	Inanition, malnutrition, senility
Halcombe, Aubrey W.	94	Aug. 13	Kokomo	Chronic myocarditis
Allen, Charles E.	68	Aug. 17	Orleans	Uremia. Chronic glomerulonephritis
Johnson, Robert B. (M)	48	Aug. 17	Hope	Barbiturate overdose
Pregent, James I., Jr.	29	Aug. 29	Mishawaka	Auto wreck, skull fracture, circulatory collapse
Bird, Charles R. (S)	85	Aug. 29	Indianapolis	Azotemia. Chronic pyelonephritis
Gilbert, Ivan (M)	63	Aug. 29	Terre Haute	Rheumatic heart disease
Sanders, Russell F.	61	Sept. 1	Richmond	Plane crash
Mueller, Lillian B. (S)	76	Sept. 2	Indianapolis	Bronchopneumonia
Murray, Frederick N.	78	Sept. 5	Kokomo	Cerebral hemorrhage
White, William J. (R)	88	Sept. 9	Gary	Uremia
Davis, John A. (M)	54	Sept. 23	Indianapolis	Cancer of the lungs
Juvinall, James M. (R)	77	Sept. 26	Indianapolis	Acute coronary occlusion
Gachaw, Gabra S. (M)	31	Oct. 3	Indianapolis	Status asthmaticus
Luckey, Robert C. (M) (R)	59	Oct. 6	Wolfe Lake	Coronary thrombosis
Cox, Clifford E. (S)	72	Oct. 14	Indianapolis	Anterior myocardial infarction
Sneary, Kenneth D. (M)	67	Oct. 16	Avilla	Mesenteric thrombosis
Dome, Hardin S. (R)	87	Oct. 17	Tell City	Cerebrovascular accident
Hursey, Virgil G. (M)	71	Oct. 19	Milford	Acute coronary occlusion
Mumford, E. Bishop (S)	82	Oct. 23	Indianapolis	Ruptured aortic aneurysm
Rodriguez, Juan (M)	69	Oct. 24	Ft. Wayne	Ruptured abdominal aortic aneurysm
Griffis, Vierle C. (S)	78	Nov. 1	Richmond	Chronic bronchiectasis
Gellis, Sidney N.	50	Nov. 1	Indianapolis	Myocardial infarction. A.H.D.
Searcy, Lutha Walker	79	Nov. 5	Rising Sun	Coronary occlusion
Hynes, Roy T. (M)	62	Nov. 10	Carmel	Myocardial insufficiency. Acute pulmonary edema
Erehart, Archie D.	67	Nov. 11	Anderson	Cerebral hemorrhage. Gun shot wound
Voyles, Charles F. (S) (R)	89	Nov. 12	Indianapolis	Acute coronary occlusion
Matthews, Dennis N.	80	Nov. 14	North Vernon	Cerebral hemorrhage
Davis, Alice L. H. (S)	75	Nov. 17	Hammond	Myocardial infarction
Allen, Hubert E. (S)	73	Nov. 26	Richmond	Aspiration pneumonia
Keene, T. B. Victor	80	Dec. 12	Indianapolis	Comminuted skull fracture received in fall
Moenning, Walter P. (M)	65	Dec. 17	Indianapolis	Cardiac inertia. A.H.D.
Wilkinson, Carl H.	91	Dec. 20	Lafayette	Arteriosclerotic heart disease. Senility
Sluss, John W. (S)	94	Dec. 20	Indianapolis	Cerebral arteriosclerosis. Pernicious anemia
Wiedemann, Frank E. (S)	89	Dec. 24	Terre Haute	Hypertensive C.V. disease
Nie, Grover M. (S)	75	Dec. 24	Huntington	Subacute bacterial endocarditis. Myocardial infarction
Johns, Elmer D. (R)	88	Dec. 24	Zionsville	Coronary occlusion
Meade, Walter W. (M)	57	Dec. 28	Bicknell	Acute bromide poisoning. Bronchial pneumonia ◄

Presidents of ISMA Since Its Organization

Medical Convention	Elected	Served
*Livingston Dunlap, Indianapolis	1849	1849
Medical Society		
*William T. S. Cornett, Versailles	1849	1850
*Ashahel Clapp, New Albany	1850	1851
*George W. Mears, Indianapolis	1851	1852
*Jeremiah H. Brower, Lawrenceburg	1852	1853
*Elizur H. Deming, Lafayette	1853	1854
*Madison J. Bray, Evansville	1854	1855
*William Lomax, Marion	1855	1856
*Daniel Meeker, LaPorte	1856	1857
*Talbot Bullard, Indianapolis	1857	1858
*Nathan Johnson, Cambridge City	1858	1859
*David Hutchinson, Mooresville	1859	1860
*Benjamin S. Woodworth, Ft. Wayne	1860	1861
*Theophilus Parvin, Indianapolis	1861	1862
*James F. Hibberd, Richmond	1862	1863
*John Sloan, New Albany	1863	----
*John Moffet (acting), Rushville	1863	1864
*Samuel L. Linton, Columbus	1864	----
*Wilson Lockhart (acting), Danville	1864	1865
*Myron H. Harding, Lawrenceburg	1865	1866
*Vierling Kersey, Richmond	1866	1867
*John S. Bobbs, Indianapolis	1867	1868
*Nathaniel Field, Jeffersonville	1868	1869
*George Sutton, Aurora	1869	1870
*Robert N. Todd, Indianapolis	1870	1871
*Henry P. Ayres, Ft. Wayne	1871	1872
*Joel Pennington, Milton	1872	1873
*Isaac Casselberry, Evansville	1873	----
*Wilson Hobbs (acting), Knightstown	1873	1874
*Richard E. Houghton, Richmond	1874	1875
*John H. Helm, Peru	1875	1876
*Samuel S. Boyd, Dublin	1876	1877
*Luther D. Waterman, Indianapolis	1877	1878
*Louis Humphreys, South Bend	1878	----
*Benj. Newland (acting), Bedford (v.p.)	1878	1879
*Jacob R. Weist, Richmond	1879	1880
*Thomas B. Harvey, Indianapolis	1880	1881
*Marshall Sexton, Rushville	1881	1882
*William H. Bell, Logansport	1882	1883
*Samuel E. Mumford, Princeton	1883	1884
*James H. Woodburn, Indianapolis	1884	1885
*James S. Gregg, Ft. Wayne	1885	1886
*General W. H. Kemper, Muncie	1886	1887
*Samuel H. Charlton, Seymour	1887	1888
*William H. Wishard, Indianapolis	1888	1889
*James D. Gatch, Lawrenceburg	1889	1890
*Gonsolvo C. Smythe, Greencastle	1890	1891
*Edwin Walker, Evansville	1891	1892
*George F. Beasley, Lafayette	1892	1893
*Charles A. Daugherty, South Bend	1893	1894
*Elijah S. Elder, Indianapolis	1894	----
*Charles S. Bond (acting), Richmond	1894	1895
*Miles F. Porter, Ft. Wayne	1895	1896
*James H. Ford, Wabash	1896	1897
*William N. Wishard, Indianapolis	1897	1898
*John C. Sexton, Rushville	1898	1899
*Walker Schell, Terre Haute	1899	1900

Medical Society	Elected	Served
*George W. McCaskey, Ft. Wayne	1900	1901
*Alembert W. Brayton, Indianapolis	1901	1902
*John B. Berteling, South Bend	1902	1903
*Jonas Stewart, Anderson	1903	1904
*George T. MacCoy, Columbus	1904	1905
*George H. Grant, Richmond	1905	1906
*George J. Cook, Indianapolis	1906	1907
*David C. Peyton, Jeffersonville	1907	1908
*George D. Kahlo, French Lick	1908	1909
*Thomas C. Kennedy, Shelbyville	1909	1910
*Frederick C. Heath, Indianapolis	1910	1911
*William F. Howat, Hammond	1911	1912
*A. C. Kimberlin, Indianapolis	1912	1913
*John P. Salb, Jasper	1913	1914
*Frank B. Wynn, Indianapolis	1914	1915
*George F. Keiper, Lafayette	1915	1916
*John H. Oliver, Indianapolis	1916	1917
*Joseph Rilus Eastman, Indianapolis	1917	1918
*William H. Stemm, North Vernon	1918	1919
*Charles H. McCully, Logansport	1919	1920
*David Ross, Indianapolis	1920	1921
*William R. Davidson, Evansville	1921	1922
*Charles H. Good, Huntington	1922	1923
*Samuel E. Earp, Indianapolis	1923	1924
*Eldridge M. Shanklin, Hammond	1924	1925
*Charles N. Combs, Terre Haute	1925	1926
*Frank W. Cregor, Indianapolis	1926	1927
George R. Daniels, Marion	1926	1928
*Charles E. Gillespie, Seymour	1927	1929
*Angus C. McDonald, Warsaw	1928	1930
*Alois B. Graham, Indianapolis	1929	1931
Franklin S. Crockett, Lafayette	1930	1932
*Joseph H. Weinstein, Terre Haute	1931	1933
*Everett E. Padgett, Indianapolis	1932	1934
*Walter J. Leach, New Albany	1933	1935
Roscoe L. Sensenich, South Bend	1934	1936
*Edmund D. Clark, Indianapolis	1935	1937
Herman M. Baker, Evansville	1936	1938
*Edmund M. Van Buskirk, Ft. Wayne	1937	1939
Karl R. Ruddell, Indianapolis	1938	1940
*Albert M. Mitchell, Terre Haute	1939	1941
Maynard A. Austin, Anderson	1940	1942
*Carl H. McCaskey, Indianapolis	1941	1943
*Jacob T. Oliphant, Farmersburg	1942	1944
*Neslen K. Forster, Hammond	1943	1945
*Jesse E. Ferrell, Fortville	1944	1946
*Floyd T. Romberger, Lafayette	1945	1947
*Cleon A. Nafe, Indianapolis	1946	1948
Augustus P. Hauss, New Albany	1947	1949
*C. S. Black, Warren	1948	1950
Alfred Ellison, South Bend	1949	1951
*J. William Wright, Indianapolis	1950	1952
Paul D. Crimm, Evansville	1951	1953
Wm. Harry Howard, Hammond	1952	1954
Walter L. Portteus, Franklin	1953	1955
Walter U. Kennedy, New Castle	1954	1956
Elton R. Clarke, Kokomo	1955	1957
M. C. Topping, Terre Haute	1956	1958
Kenneth L. Olson, South Bend	1957	1959
Earl W. Mericle, Indianapolis	1958	1960
Guy A. Owsley, Hartford City	1959	1961

* Deceased.

Constitution and By-Laws of the Indiana State Medical Association

CONSTITUTION

ARTICLE I.—NAME OF THE ASSOCIATION

The name and title of this organization shall be the Indiana State Medical Association.

ARTICLE II.—PURPOSE OF THE ASSOCIATION

The purposes of this Association shall be to federate and bring into one compact organization the medical profession of the State of Indiana, and to unite with similar societies of other states to form the American Medical Association; to extend medical knowledge and advance medical science; to elevate the standard of medical education and to secure the enactment and enforcement of just medical laws; to promote friendly intercourse among physicians; to protect its members against imposition; and to enlighten and direct public opinion in regard to the great problems of medical care, and public health, so that the profession shall become more capable and honorable within itself and more useful to the public in the prevention and cure of disease and in prolonging and adding comfort to life.

ARTICLE III.—COMPONENT SOCIETIES

Component societies shall consist of those county medical societies which hold charters from this Association.

ARTICLE IV.—COMPOSITION OF THE ASSOCIATION

Section 1.—This Association shall consist of Active Members, Associate Members, Senior Members and Honorary Members.

Sec. 2.—*Active Members.*—The active members of this Association shall be the members of the component county medical societies, and no county medical society shall grant active membership therein on a basis that does not include membership in the Indiana State Medical Association.

Sec. 3.—*Associate Members.*—Members of the Indiana State Dental Association in good standing are, by virtue of their membership therein, made associate members of the Indiana State Medical Association.

Sec. 4.—*Senior Members.*—Senior members shall be physicians of the State of Indiana who have attained the age of seventy years and have held membership in the Indiana State Medical Association for twenty years or more, and who, upon their application, have been certified to the executive secretary as eligible for such membership by the county societies of which they are members. Eligibility to senior status shall begin the year after the member reaches the age of seventy.

All members who, previous to the adoption of this amendment to the constitution, were certified as honorary members on the basis of the above qualifications, shall hereafter be classified as senior members.

Sec. 5.—*Honorary Members.*—Honorary members shall consist of teachers, scientists and others who have rendered highly meritorious service to the profession of medicine, and of physicians and surgeons of distinction, upon whom the Association may, through vote of the House of Delegates, desire to confer such membership as a special honor.

Sec. 6.—*Rights and Privileges of Members.*—Active members and senior members shall have the same rights and privileges except as follows:

a. Senior members shall not be required to pay membership dues in the State Association.

b. If senior members desire to receive THE JOURNAL of the State Association, they shall pay the regular subscription price therefor.

c. Honorary members hereafter elected shall hold such membership as an honor and distinction and shall have the right to attend meetings of the Association. They shall have the privilege of participating in discussions but shall have no right to vote or to hold office. They shall not be required to pay membership dues in the State Association.

ARTICLE V.—HOUSE OF DELEGATES

The House of Delegates shall be the legislative and business body of the Association and shall consist of (1) Delegates elected by the component county societies; (2) the Councilors; and (3) the ex-presidents of the Indiana State Medical Association. The following shall be *ex officio* members: the President, the President-elect, the Executive Secretary, the Treasurer of this Association, and the delegates to the American Medical Association, all without power to vote, except in case of a tie vote, when the President or person presiding shall cast the deciding vote.

ARTICLE VI.—COUNCIL

The Council shall consist of (1) the Councilors, and (2) *ex officio* the President, President-elect, and Treasurer with power to vote. Besides its duties mentioned in the Bylaws, it shall constitute the Board of Trustees of this organization,

having full charge and control of all the property of the Association. It shall have full authority and power of the House of Delegates between sessions of the House of Delegates, except that it shall not make changes in the laws governing the Association nor exercise legislative functions, except as stated in the Bylaws, and at all times shall be the finance committe of the Association. Seven Councilors shall constitute a quorum.

ARTICLE VII.—SECTIONS AND DISTRICT SOCIETIES

The House of Delegates may provide for a division of the scientific work of the Association into appropriate sections; and for the organization of such Councilor District Societies as will promote the best interests of the profession, such societies to be composed exclusively of members of component county societies. Councilor districts shall be defined by the House of Delegates.

ARTICLE VIII.—CONVENTION AND MEETINGS

Section 1.—The Association shall hold an Annual Convention during which there shall be held such general and section meetings as the Association through its duly constituted officers and committees may provide for.

Sec. 2.—The House of Delegates shall select the place two years in advance for holding the annual convention. The time for the convention shall be fixed by the Council, and the Council shall have the power also to change the place for holding the convention where conditions may create difficulties in holding a successful convention at the place designated by the House of Delegates.

Sec. 3.—Special meetings of either the Association or the House of Delegates shall be called by the President on petition of twenty delegates or fifty members.

ARTCLE IX.—OFFICERS

Section 1.—The officers of this Association shall be a President, a President-elect, an Executive Secretary, a Treasurer, and thirteen Councilors, each of whom shall be a member, except the Executive Secretary, who need not necessarily be either a physician or a member.

Sec. 2.—The officers, except the Councilors and the Executive Secretary, whose election has been provided for hereinafter, shall be elected annually. The terms of elected Councilors shall be for three years and approximately one-third of the number shall be elected annually. No Councilor shall be eligible to serve longer than two consecutive three-year terms, effective with the beginning of his next election following the adoption of this amendment.

All of these officers shall serve until their successors are elected and installed. Provided, that if any elected Councilor fails, without reason acceptable to the Council, in any one calendar year to attend a majority of the meetings of the Council, he shall thereby cease to be a Councilor, and the Executive Secretary shall thereupon take action in accordance with Section 4 of this article.

Sec. 3.—The officers of this Association with the exception of the executive secretary shall be elected by the House of Delegates as the first order of business of the last day of the Annual Convention, and no person shall be elected to any such office who has not been an active member of the Association for the preceding two years.

Sec. 4.—The Councilors shall be elected by the respective district societies. If any district fails to meet and elect its Councilor by the time of expiration of the incumbent's term of office, the Executive Secretary of the Association shall cause a special meeting to be called by said district society for the purpose of such election.

Sec. 5.—Each Councilor district shall elect an alternate Councilor whose term of office shall be the same as the Councilor, namely three years. The alternate Councilor shall be elected in a year during which there is no Councilor elected.

The duties of the alternate Councilor shall be:

1. To represent the Councilor district in the absence of the regularly elected Councilor.

2. To vote only in the absence of the regularly elected Councilor either in the House of Delegates or in Council meetings where he represents the regularly elected Councilor.

3. The alternate Councilor shall not have the power of discussion if the regularly elected Councilor is present.

Sec. 6.—Any officer may be removed from office after a hearing before the Council, on thirty days' notice, on charges in writing, upon a vote of three-fourths of the members of the Council.

Sec. 7.—In event of the death, resignation, removal, or disability of the President, the President-elect shall succeed to the presidency. In the event of the death, disability, resignation or removal of both the President and the President-elect, the chairman of the Council shall become President pro tem and as such shall, within a period of sixty days, call a special session of the members of the House of Delegates for the purpose of electing members to fill these vacancies, who shall serve until the next regular meeting of the House of Delegates, at which time both a President and a President-elect shall be elected, both of whom shall take office immediately upon their election.

Sec. 8.—A vacancy in the office of Treasurer shall be filled by an election by the Councilors

at the next regular meeting of the Council following the occurrence of such vacancy.

Sec. 9.—In the event of a vacancy occurring from any cause, except expiration of the term of office, in the office of any district councilor, the duly elected alternate councilor from the same district shall succeed to the office of councilor in that district for the unexpired term of said councilor.

In the event vacancies occur in any councilor district in the offices of both councilor and alternate councilor, the vacancies shall be filled by an election by the members of the association within the councilor district in which such vacancies occur. A call for such elections shall be issued by the executive secretary of the State Association following conference with the officers of the district organization. The call shall state the time and place of holding the election and shall be sent registered mail to the county secretary as filed in the State secretary's office of each component society within the district. Such call shall be mailed within ten days after the State secretary has learned of the vacancies. The election may be held at a special or regular meeting in which other business than the election may be transacted. Such election shall be held within fifteen days after the secretary of the State Association shall have mailed such call.

Sec. 10.—None of the officers shall receive compensation except the Executive Secretary, who shall be employed by the Council, and the Council shall fill any vacancy in that office.

ARTICLE X.—RECIPROCITY OF MEMBERSHIP WITH OTHER STATE SOCIETIES

In order to broaden professional fellowship, this Association is ready to arrange with other State Medical Associations for an interchange of certificates of membership so that members moving from one state to another may avoid the formality of re-election.

ARTICLE XI.—INCOME AND EXPENSES

Funds for carrying on the activities of this Association shall be raised by the following means:

a. Membership dues to be collected by the component county societies in connection with the dues for such component societies. The amount of the dues of each component society shall be fixed by the society itself; and the amount of dues for this Association shall be fixed from time to time by the House of Delegates.

b. Voluntary contributions.

c. Revenues derived from the Association's publications.

d. Any other manner approved by the House of Delegates.

Funds may be appropriated by the House of Delegates to defray the expenses of the Association, for publications, and for such other purposes as will promote the welfare of the profession. All motions and resolutions appropriating funds must be referred to the Council for approval before final action is taken thereon.

ARTICLE XII.—REFERENDUM

Section 1.—A General Meeting of the Association may, by a two-thirds vote of the members present, order a general referendum on any question pending before the House of Delegates, and when so ordered the House of Delegates shall submit such question to the members of the Association, who may vote by mail or in person, and if the members voting shall comprise a majority of all members of the Association, a majority of such vote shall determine the question and be binding on the House of Delegates.

Sec. 2.—The House of Delegates may, by a two-thirds vote of its own members, submit any question before it to a general referendum, as provided in the preceding section, and the result shall be binding on the House of Delegates.

ARTICLE XIII.—THE SEAL

The Association shall have a common Seal, with power to break, change or renew the same at pleasure.

ARTICLE XIV.—AMENDMENTS

The House of Delegates may amend any article of this Constitution by a two-thirds vote of the delegates present at any Annual Convention, provided that such amendment shall have been presented in open meeting at the previous Annual Convention, and that it shall have been published twice during the year in THE JOURNAL of this Association.

BYLAWS

CHAPTER I.—MEMBERSHIP

Section 1.—The term "Member" as used in these Bylaws unless otherwise indicated shall mean both active and senior members of component county medical societies who hold either the Degree of Doctor of Medicine or Bachelor of Medicine.

Sec. 2.—Any physician who is a member in good standing of a component county society and who has paid to this Association his annual dues is a member in good standing of the Indiana State Medical Association, provided, however, that he is a citizen of the United States of America, or has filed his declaration of intention of becoming a citizen and his first citizenship papers are in full force and effect.

Sec. 3.—No person who is under sentence of suspension or expulsion from a component society, or whose name has been dropped from its roll of members, shall be entitled to any of the rights or benefits of this Association, nor shall he be permitted to take part in any of its proceedings until he has been relieved of such disability.

Sec. 4.—Each member in attendance at the Annual Convention shall register by indicating the component society of which he is a member. When his right to membership has been verified, by reference to the roster of his society, he shall receive a badge, which shall be evidence of his right to all the privileges of membership at that convention. No member shall take part in any of the proceedings of an Annual Convention until he has complied with the provisions of this section.

CHAPTER II.—GENERAL MEETINGS

Section 1.—General Meetings shall mean all meetings planned for attendance by all registered members, and shall include those meetings in which guests of registered members or the general public are also invited. The address of the President may be delivered in a General Meeting, and the programs of General Meetings shall be arranged by the Executive Committee except where scientific papers are included, in which event the scientific part of the program shall be arranged by the Commission on Convention Arrangements, with the sanction and approval of the officers.

Sec. 2.—The General or Section Meetings may recommend to the House of Delegates the appointment of committees or commissions for scientific investigation of special interest and importance to the profession and public.

Sec. 3.—All scientific papers read before the Association or any of the sections shall become its property and shall not be published in any but the official publications of this Association, except by consent of the officers and the Editorial Board of this Association. Each such paper shall be deposited with the Executive Secretary when read.

Sec. 4.—The Council shall appropriate from the funds of the Association for such an amount as in the discretion of the Council shall be reasonably needed for that purpose, and no commitments shall be made for expenses in excess of the amount appropriated for such Convention. The funds so appropriated shall, upon the approval of the Executive Committee, be expended at the direction of the Commission on Convention Arrangements appointed by the President for the Convention for which the appropriation is made. All money in excess of that expended for actual expenses incurred shall revert each year to the treasury of the Association.

CHAPTER III.—SECTIONS

Section 1.—During the Annual Convention the Association in addition to the general meetings may hold the following section meetings:

a. Surgical.
b. Internal Medicine.
c. Eye, Ear, Nose, and Throat.
d. Anesthesia.
e. General Practice.
f. Obstetrics and Gynecology.
g. Preventive Medicine and Public Health.
h. Radiology.
i. Nervous and Mental Diseases.
j. Any other sections that hereafter may be provided for by the House of Delegates.

Sec. 2.—The officers of each section shall be a Chairman, a Vice-Chairman, and a Secretary, and they shall preside over the meetings of the sections and shall be responsible to the Committee on Scientific Work for the section speakers and papers.

Sec. 3.—The election of officers of the sections shall be the last order of business of the last meeting of the sections during the Annual Convention.

Sec. 4.—No section meeting shall be allowed to conflict with a general meeting.

CHAPTER IV.—HOUSE OF DELEGATES

Section 1.—The House of Delegates may meet on the day before the date set for the beginning of the general registration of the attendance at the Annual Convention. It may adjourn from time to time as may be necessary to complete its business, provided that its hours shall conflict as little as possible with the General or Section Meetings. It shall meet on the last day of the Annual Convention for the election of officers for the ensuing year, and for the completion of any business previously introduced. The order of business shall be arranged as a separate section of the program.

Sec. 2.—Each component county society shall be entitled to send to the House of Delegates each year one delegate for every fifty members and one for each major fraction thereof; but, irrespective of the number of members, each component society which has made its annual report and paid its assessments, as provided in this Constitution and Bylaws, shall be entitled to one delegate, except that where a component society is made up of physicians of more than one county, each county shall be entitled to at least one delegate and one alternate delegate who shall be a resident of the county he represents as a delegate or alternate delegate and who shall be selected by the physicians residing in such county.

The number of Delegates to which each Component Society is entitled shall be based upon the

number of members on record in the office of the Executive Secretary in good standing with current dues fully paid as of December 31 of the preceding year.

The names of duly elected delegates and alternates from each component society shall be sent to the Executive Secretary of this Association on or before February first prior to the Annual Convention at which such delegates are to serve. No one shall be entitled to a seat in the House of Delegates unless his credentials as a delegate or alternate, properly signed by the secretary of his county society, be presented to the Committee on Credentials at the time of the Annual Convention.

Sec. 3.—Fifty delegates shall constitute a quorum.

Sec. 4.—The House of Delegates shall:

a. Elect representatives to the House of Delegates of the American Medical Association in accordance with the Constitution and Bylaws of that body.

b. Divide the State into Councilor Districts, specifying what counties each district shall include, and when the best interests of the Association and profession will be promoted thereby, organize in each district a medical society, and all members of component county societies, and no others, shall be members of such district societies.

c. Have authority to appoint committees for special purposes from among members of the Association who need not be members of the House of Delegates. Such committees shall report to the House of Delegates, and the members of such committees may be present and participate in the debate on their reports.

d. Approve all memorials and resolutions issued in the name of the Association before the same shall become effective.

Sec. 5.—Proposals calling for appropriations of funds by the House of Delegates shall be submitted to the Council for its recommendation before final action of the House.

Sec. 6.—At the first meeting the President shall announce the membership of the reference committees, as hereinafter provided for, and any other committees considered by him necessary to expedite the business of the Association.

Sec. 7.—All resolutions to be presented to the House of Delegates for action shall be prepared and mailed to the Executive Secretary of the Association so that he will receive them not later than forty-five days prior to the meeting of the House of Delegates to which the resolutions will be presented for action.

Provided, that this sub-section of the Bylaws may be suspended with respect to any resolution upon a two-thirds majority vote of the House of Delegates.

CHAPTER V.—ELECTION OF OFFICERS

Section 1.—The election of officers shall be the first order of business of the House of Delegates after the reading of the minutes on the last day of the Annual Convention.

Sec. 2.—All elections shall be by ballot, and a majority of the votes cast shall be necessary to elect. In case no nominee receives a majority on the first ballot, the nominee receiving the lowest number of votes shall be dropped and a new ballot taken.

Sec. 3.—Any person known to have solicited votes for or sought any office within the gift of this Association shall be ineligible for any office for two years.

Sec. 4.—The President, President-elect, and the Treasurer shall serve from the termination of the annual meeting of the House of Delegates in which the President-elect and Treasurer are elected until the termination of the succeeding annual meeting of the House of Delegates.

CHAPTER VI.—DUTIES OF OFFICERS

Section 1.—The president, or a member designated by him, shall preside at all general meetings of the Association and of the House of Delegates. The President shall appoint all committees not otherwise provided for; he shall deliver an annual address at such time as may be arranged by the Executive Committee, and shall perform such other duties as custom and parliamentary usage may require. He shall be the real head of the profession of the state during his term of office, and as far as practicable, shall visit by appointment the various sections of the state and assist the Councilors in building up the county societies and in making their work more practical and useful.

Sec. 2.—The President-elect's term of office shall be for one year, at the completion of which he succeeds to the presidency. While President-elect, he shall assist the President in the discharge of his duties.

Sec. 3.—The Treasurer shall give bond at the expense of the Association in such an amount as shall be required by the Council. He shall receive all bequests and donations to the Association and shall demand and receive all funds due the Association except accounts due THE JOURNAL in the conduct of its business. The funds of the Association shall be deposited in a depository or depositories designated by the Executive Committee, and withdrawals from such funds shall be made on checks or drafts signed by the Treasurer and the Chairman of the Council. He shall present to the House of Delegates annually a report of the receipts and expenditures, and the state of the funds in his hands, and shall subject his accounts to an annual audit by a Certified Public Accountant.

Sec. 4.—The Executive Secretary shall be the directing manager of the Association's headquarters and JOURNAL offices, and shall supervise the work of all salaried employees in the Association offices. Such supervision shall be subject to directives from the House of Delegates, the Council, the Executive Committee, and the President of the Association. He shall discharge the administrative functions of the Association not within the duties of other officers or of committees to perform. He shall assist, at their request, all officers and committees, and shall keep himself informed in regard to non-professional matters affecting the medical profession, for the purpose of keeping himself qualified to perform the services herein mentioned. He shall be responsible for the execution and carrying out of the policies of the Association and in that connection shall perform all specific tasks committed to him by the committees, the Council, and the officers of this Association. The amount of his salary shall be fixed by the Executive Committee on approval of the Council.

Sec. 5.—The necessary expenses of the above officers incurred in the line of duty herein imposed may be allowed by the Council, but excepting the Executive Secretary, this shall not include the expenses of attending the Annual Convention.

CHAPTER VII.—COUNCIL

Section 1.—The Council shall meet as follows: 1. January, April, and July of each year on dates and at places fixed by the Council. 2. On the day preceding the first day for the scientific meetings of the Annual Convention of the Association. 3. On the last day of the Annual Convention of the Association after the adjournment of the House of Delegates. 4. At such other times as necessity may require, subject to the call of the Chairman, or on petition of three Councilors. It shall hold no meeting that will conflict with any meeting of the House of Delegates. It shall elect a Chairman, and a Clerk, who, in the absence of the Executive Secretary of the Association, shall keep a record of its proceedings. It shall, through its Chairman, make an annual report to the House of Delegates. It shall organize itself at the meeting following the final session of the House of Delegates by electing its chairman who shall serve for one year. The chairman of the Council shall be elected by secret ballot. The number of terms of the chairman shall be limited to not more than three in succession.

Terms of councilors shall begin with the first meeting of the Council following the final session of the House of Delegates at the Annual Session.

Sec. 2.—Each Councilor shall be organizer, peacemaker, and censor for his district. He shall visit the counties in his district at least once a year for the purpose of organizing component societies where none exist; for inquiring into the condition of the profession, and for improving and increasing the zeal of the county societies and their members. He shall make an annual report of his work and of the condition of the profession of each county in his district, the same to be published in the number of THE JOURNAL which is issued immediately preceding the Annual Convention. The House of Delegates may take such action, if any, as it deems appropriate upon such reports. The necessary expenses incurred by such Councilor in the line of the duties herein imposed may be allowed by the Council on a properly itemized statement, but this shall not be construed to include his expense in attending the Annual Convention of the Association.

Sec. 3.—The Council shall, through its officers and otherwise, give diligent attention to and foster the scientific work and spirit of the Association, and shall study and strive constantly to make each Annual Convention a stepping stone to future ones of higher interest.

Sec. 4.—The Council shall, in connection with the House of Delegates, consider and advise as to the interests of the profession and of the public in those important matters wherein it is dependent upon the profession, and shall use its influence to secure and enforce all proper medical and public health legislation and to diffuse popular information in relation thereto.

Sec. 5.—The Council shall make careful inquiry into the condition of the profession of each county in the state and shall have authority to adopt such methods as may be deemed most efficient for building up and increasing the interest in such county societies as already exist, and for organizing the profession in counties where societies do not exist. It shall especially and systematically endeavor to promote friendly intercourse among physicians of the same locality and shall continue these efforts until every physician in every county of the state who can be made reputable has been brought under medical society influence.

Sec. 6.—The Council shall encourage postgraduate and research work, as well as home study, and shall endeavor to have the results utilized and intelligently discussed in the county societies.

Sec. 7.—The Council shall, upon application, provide and issue charters to county societies organized to conform to the spirit of this Constitution and Bylaws.

Sec. 8.—In sparsely settled sections it shall have authority to organize the physicians of two or more counties into societies to be designated by hyphenating the names of two or more counties so as to distinguish them from district and other classes of societies; and these societies, when

organized and chartered, shall be entitled to all the privileges and representation provided herein for county societies, until such counties may be organized separately.

Sec. 9.—The Council shall be the Board of Censors of the Association. It shall consider all questions involving the rights and standings of members whether in relation to other members, to the component societies, or to this Association. All questions of an ethical nature brought before the House of Delegates or the General or Section Meetings shall be referred to the Council without discussion. It shall hear and decide all questions of discipline affecting the conduct of members of component societies on which an appeal is taken from the decision of an individual Councilor, and its decision in all such matters shall be final.

Sec. 10.—The Council shall provide for and superintend all publications of the Association, and shall have authority to appoint an editor and such assistants as it deems necessary, and fix the amounts of their salaries. The proceedings of the Council for the year shall be reported to the House of Delegates at the Annual Convention and be published in the number of THE JOURNAL which immediately precedes the Annual Convention.

Sec. 11.—In the interim between the meetings of this Association the Council shall be the executive body of the Association with full power to fill vacancies or transact any business that emergencies or the welfare of the Association may require.

Sec. 12.—The Council shall at its meeting following the close of the House of Delegates elect two members of the Association, at large, or of the Council, who, with the President, the President-elect, the Treasurer, and the Chairman of the Council, shall constitute and be known as the Executive Committee. If such members of the Executive Committee be not members of the Council they shall not have the power of vote in the Council.

CHAPTER VIII.—ORGANIZATION OF ACTIVITIES AND RESPONSIBILITIES

Section 1.—The work of the Association, the performance of which is not provided for elsewhere in the Constitution or Bylaws, and is not carried on in the meetings of the Council or of the House of Delegates, or by Special Committees created by the Executive Committee, the Council, or the House of Delegates, shall be performed by the following standing committees and commissions:

The Executive Committee
The Grievance Committee
The Student Loan Committee
The Medical-Legal Review Committee
The Commission on Convention Arrangements
The Commission on Constitution and Bylaws
The Commission on Legislation
The Commission on Public Information
The Commission on Governmental Medical Services
The Commission on Public Health
The Commission on Voluntary Health Agencies
The Commission on Medical Economics and Insurance
The Commission on Inter-Professional Relations
The Commission on Medical Education and Licensure
The Commission on Special Activities
The Commission on the Aged and Aging

The difference between committees and commissions is shown in the provision of these Bylaws pertaining to their work and composition.

Sec. 2.—Unless otherwise provided in these Bylaws, the committees shall be appointed by the President with the chairman of each committee designated by him, and the number constituting each committee shall be as indicated in the section of these Bylaws pertaining to each particular committee.

Sec. 3.—Each commission will consist of fifteen members appointed by the President, with at least one member from each councilor district. The original appointees in each commission shall be divided into three groups by lot. The first group shall serve three years; the second, two years; and the third, one year. Thereafter, each incoming President shall appoint five members of each commission to fill the vacancies resulting from the expiration of the terms of members, and such appointments shall be for three years. The President shall also appoint members to fill the unexpired term where any vacancy occurs through death, resignation or otherwise.

Sec. 4.—The President shall have the power, with the approval of the Council, to remove any member of any committee or commission where such member, for any reason, does not or cannot work at attempting to perform the duties pertaining to membership on such committee or commission.

Sec. 5.—Unless otherwise provided in these Bylaws, no member of either a committee or a commission shall serve on the same committee or commission more than two consecutive terms, but this shall not prevent him serving more than two terms if the term of another member intervenes. The time given to the serving of an unexpired term shall not be considered in determining the period within which a member may serve consecutively.

Sec. 6.—Within sixty days after the meeting of the State Convention, the President will call all commissions and committees into a joint meeting in which he will give a statement of the duties and responsibilities of all committees and commissions, call special attention to any immediate problems confronting the Association, and assign such problems or parts thereof to appropriate committees and commissions. Then this joint meeting will divide into meetings of the separate commissions,

at which time the commissions and committees will organize by the election of chairman, vice-chairman and secretary, unless otherwise provided for in these Bylaws. In these meetings the commissions may provide for such subcommittees within the separate commissions as they may deem advisable. Each committee or commission shall have the right to call upon other committees, commissions or members of the profession for counsel and advice with respect to its work.

Sec. 7.—Each committee and commission shall have the privilege and is encouraged to have joint meetings with any like committee or commission of the Auxiliary where such like committee or commission exists, for the purpose of coordinating their activities to make them more effective in the medical service of the public and the intent of the Association.

Sec. 8.—Each committee and commission shall have the duty and responsibility of keeping constantly and currently informed on the matters within the area of its special interest and activity; of studying the conditions within that area with the purpose of finding possibilities of improvement; of finding the best solutions it can to the specific problems referred to it; of contributing in its area to the achievements of the Association as a whole in the protection and improvement of the health of the whole human family; and finally of making all its efforts useful by passing on to the Association in the most effective manner possible the results of its studies and activities in its own area of special interests.

Sec. 9.—The President and Executive Secretary shall be *ex officio* members of all the foregoing committees and commissions without voting rights where their inclusion on the committee or commission is not otherwise provided for in these Bylaws.

CHAPTER IX.—THE EXECUTIVE COMMITTEE

Section 1.—The Executive Committee, constituted as provided in Section 12 of Chapter VII of these Bylaws, shall hold its first meeting immediately following the meeting of the Council held at the close of the last meeting of the House of Delegates in the annual convention, and shall organize by electing its chairman. Its secretary shall be the Executive Secretary of the Association. It shall meet with the Executive Secretary on the call of the Chairman, or of any three members, to plan and execute such work as may be necessary for the welfare of the Association and the conduct of the Executive Secretary's office. It shall have all jurisdiction with respect to medical defense activities of the Association and shall be governed by the rules it adopts concerning that activity and by the Bylaws of this Association. It shall make decisions for the Association, including matters pertaining to THE JOURNAL, during the intervals between the meetings of the Council, and shall report its actions to the Council.

Sec. 2.—It shall prepare a budget for the ensuing fiscal year; and all expenditures of the Association, except those otherwise provided for under the Constitution and Bylaws, shall be governed by the budget. No expense not provided for in the budget or otherwise under the Constitution and Bylaws shall be incurred by any officer, commission or committee. A committee, commission or officer may submit a request for funds to meet unusual expenses not included in the annual budget, and the Executive Committee shall have the power, by a two-thirds vote, to amend the budget to provide such funds.

CHAPTER X.—THE GRIEVANCE COMMITTEE

Section 1.—The Grievance Committee shall be composed of nine physicians, three of whom may be past presidents of the Association, and all of whom shall be appointed by the President. Not more than two physicians shall be appointed from any one councilor district. No member shall hold any elective office in the State Association during tenure on this committee. Of the nine physicians first appointed, three shall serve for a period of one year; three for two years; and three for three years. Thereafter, three shall be appointed each year for a three-year term to fill the vacancies caused by the expiration of terms. Any vacancy occurring in this committee, other than by expiration of term, shall be filled by an interim appointee to serve the balance of the unexpired term. This committee shall organize itself by electing a chairman, a vice-chairman and a secretary.

Sec. 2.—This provision regarding the constitution of the Grievance Committee shall be construed to mean that the present committee of that name is continued in that position with the terms of its members expiring and new members to be appointed on the basis of this provision being operative and effective as of the dates of their respective original appointments; and it is not to be construed as having the effect of creating a new committee, all of whose members are to be appointed upon this amendment being adopted and becoming effective.

Sec. 3.—In addition to the above provided organization and membership of the committee, the President of the Association shall appoint an accredited psychiatrist as a consultant for the committee, whose tenure of office shall be on an annual basis. The appointment of the psychiatrist may be made from any councilor district of the Association, irrespective of the membership of the committee including another member or members from the same councilor district. He shall have the same rights and privileges as other members of the

committee except that he shall not have the right to vote.

Sec. 4.—The duties of this committee shall be to receive complaints, appeals or suggestions from physicians or laymen concerning professional conduct. It shall attempt to find the facts regarding any matter brought to its attention, through procedures proper and appropriate to that end, and shall attempt to adjust differences between patients and physicians, and between physicians. It may, if it believes the facts justify such action, cite a member of the Association to the Council of the State Association. It shall, subject to the approval of the Council, draw up a set of rules and regulations governing its procedure and official actions.

CHAPTER XI.—THE COMMISSION ON CONVENTION ARRANGEMENTS

Section 1.—The Commission on Convention Arrangements, with the advice and assistance of the Executive Secretary, shall provide suitable accommodations for meetings of the Association, including the House of Delegates, Council, and of their respective committees, the scientific and technical exhibits, and in conjunction with the Executive Secretary, shall have general charge of all the arrangements. Its chairman shall report an outline of the arrangements to the Executive Secretary of the Association for publication in THE JOURNAL and in the official programs, and shall make additional announcements during the session as occasion may require. The arrangements and the character of any and all technical exhibits must meet with the approval of the Executive Committee of the Association.

Sec. 2.—It shall, with the approval of the Executive Committee, prepare a program for scientific work for the annual convention in which shall be included the respective programs for section meetings which shall be prepared through cooperation with the officers of the various sections; and it shall, with the approval of the Executive Committee, arrange for scientific exhibits as a part of the annual convention.

Sec. 3.—The general, scientific and sectional programs, and the financial arrangements to provide for them must be approved by the Executive Committee before being officially announced.

CHAPTER XII.—THE STUDENT LOAN COMMITTEE

Section 1.—The Student Loan Committee shall be constituted as follows:

(a) The President of Indiana State Medical Association

(b) One Councilor of the Association to be appointed by the President

(c) One general practitioner to be appointed by the President

(d) One specialist to be appointed by the President

(e) The Treasurer of Indiana State Medical Association

(f) The Dean of Indiana University School of Medicine

(g) One of the attorneys of Indiana State Medical Association to be appointed by the President

Sec. 2.—This committee shall have authority to make loans to medical students in accordance with the terms and conditions under which funds are made available for that purpose. The committee shall organize itself at its first meeting following the annual convention of the Association, by the election of a chairman and a secretary. The committee shall adopt its own rules and regulations, subject to the approval of the Council. The secretary shall have the duty and responsibility of keeping minutes of all transactions of the committee, and shall file a copy of such minutes, as well as a copy of all papers pertaining to any application or loans, in the Headquarters Office of the Association.

CHAPTER XIII.—THE MEDICAL-LEGAL REVIEW COMMITTEE

Section 1.—The Medical-Legal Review Committee shall consist of three members whose duty it shall be to meet in joint session and work with a similar committee to be appointed by the President of the State Bar Association. This committee of the Medical Association shall function as the medical representatives provided for in the Joint Inter-Professional Code of the State Medical Association and the State Bar Association to carry out the purposes of that Code. Its duties shall be as stated in that Code in the form in effect from time to time as approved by the Association.

CHAPTER XIV.—THE COMMISSION ON CONSTITUTION AND BYLAWS

Section 1.—The Commission on Constitution and Bylaws shall keep in contact with the developments and changes in procedures in carrying on the work of this Association; shall suggest revisions necessary to keep the Constitution and Bylaws always in accord with the practices and procedures best adapted to the functioning of the Association; and shall keep the practices and procedures of the Association consistent with the provisions from time to time contained in the Constitution and Bylaws—to the end that all members of the profession, by reference to the Constitution and Bylaws, may be able to obtain accurate information regarding procedure and practice within the Association, and that hampering of such procedure and practice by obsolete provisions in the Constitution and Bylaws may be avoided.

CHAPTER XV.—THE COMMISSION ON LEGISLATION

Section 1.—The Commission on Legislation shall study all legislation, both state and national, and all local legislative trends and movements, as to their effect upon the practice of medicine and the protection of the public health; shall keep the profession informed at all times concerning the matters within its area of responsibility; shall conduct investigations of legislative proposals; and shall maintain liaison with members of the State Legislature and of the United States Congress, and with the legislative activities of the American Medical Association. It shall strive to implement and make effective the legislative proposals adopted by the Association.

CHAPTER XVI.—THE COMMISSION ON PUBLIC INFORMATION

Section 1.—The Commission on Public Information shall collect and organize for dissemination to the public all matters of public interest within the field of medicine, including the activities of other commissions in which the public interest would be involved, and including also the achievements in the advancement of medicine which would be of interest to the public; shall disseminate all such information through the use of whatever media the Commission may find adaptable to that purpose so that such information may be brought to the public in the most effective and convincing manner; and shall develop and maintain the relations of the medical profession with the public in such a way as to give the lay public a better knowledge and understanding of the aims, objects and value of the profession to the public.

CHAPTER XVII.—THE COMMISSION ON GOVERNMENTAL MEDICAL SERVICES

Section 1.—The Commission on Governmental Medical Services shall concern itself and assume special responsibility in obtaining information and giving counsel and advice to the Association with respect to all matters in which medical service comes into contact with any existing or proposed functions of government, including civil defense, rehabilitation of persons handicapped by abnormality or disease, medical service in welfare departments, maternal and child health programs sponsored through governmental agencies, medical care of military manpower, plans and programs for medical care of veterans, medical care for dependents of those in uniformed services of the Government, plans and programs of the Government for medical care now existing or which may hereafter be adopted by any special group, government programs for elimination of venereal disease and other communicable diseases, and all programs and plans for medical care to be provided through municipal, state or federal governments.

CHAPTER XVIII.—THE COMMISSION ON PUBLIC HEALTH

Section 1.—The Commission on Public Health shall assemble and study information regarding industrial medical practice, rural health, preventive medicine, placement of physicians, traffic safety, conservation of hearing and vision; and shall bring such information, and the possibility of progress and advancement in such fields, to the attention of the medical profession, with suggestions for improvements as the commission finds such possibilities.

CHAPTER XIX.—THE COMMISSION ON VOLUNTARY HEALTH AGENCIES

Section 1.—The Commission on Voluntary Health Agencies shall maintain liaison between all voluntary health agencies and the Association; shall study and counsel in regard to planning all educational and other activities of such agencies; and shall keep the Association fully informed at all times regarding present and contemplated programs of these agencies.

CHAPTER XX.—THE COMMISSION ON MEDICAL ECONOMICS AND INSURANCE

Section 1.—The Commission on Medical Economics and Insurance shall study and improve forms used in medical and hospital insurance; shall continuously be interested in all types of plans for prepayment of medical and hospital expense, and for provision for medical and hospital service through all types of group activity; shall maintain liaison with labor with respect to labor's problems involving medical and hospital care, and Workmen's Compensation problems; and shall seek improved solutions of professional liability or malpractice problems, tax problems in relation to medical practice, and problems involving physician retirement plans.

CHAPTER XXI.—THE COMMISSION ON INTER-PROFESSIONAL RELATIONS

Section 1.—The Commission on Inter-Professional Relations shall study to find all the best methods of maintaining on the highest and most satisfactory levels physicians' professional relations with hospitals, nurses, dentists, pharmacists, pharmaceutical manufacturers, veterinarians, nursing homes, and all other professional groups with which the practice of medicine comes into contact.

CHAPTER XXII.—THE COMMISSION ON MEDICAL EDUCATION AND LICENSURE

Section 1.—The Commission on Medical Education and Licensure shall maintain liaison with, and try to be of assistance to, medical schools and the licensing board; and shall keep in contact with, and endeavor to assist in improving, undergraduate education, postgraduate education, intern training, resident training, preceptor instruction, and public school health education.

CHAPTER XXIII.—THE COMMISSION ON SPECIAL ACTIVITIES

Section 1.—The Commission on Special Activities shall organize and promote support for the American Medical Education Fund, assistance to physicians, blood banks, and all miscellaneous activities not falling within the area of responsibilities of other commissions or committees.

CHAPTER XXIV.—THE COMMISSION ON THE AGED AND AGING

Section 1.—The duties of this Commission shall be to study, investigate, and make recommendations to the Association in the areas falling within the question of the aged and aging, including medical care programs, medical care insurance, rehabilitation, and preventive medicine.

CHAPTER XXV.—REFERENCE COMMITTEES

Section 1.—Immediately after the organization of the House of Delegates at each Annual Convention, the President shall announce the membership of the reference committees to serve during the convention for which they are appointed. Appointments to these reference committees shall be made by the President in time for them to be published in THE JOURNAL and the Handbook prior to such Annual Convention.

The President shall have the power to appoint substitutes from among the members present for absent appointees.

Each committee shall consist of five members, at least three of whom shall be members of the House of Delegates. The chairman shall be named by the President from among those who are members of the House of Delegates. To these committees shall be referred all reports, resolutions, measures and propositions presented to the House of Delegates, except such matters as properly come before the Council, and the recommendations of these committees shall be submitted to the next meeting of the House of Delegates for acceptance in the original or modified form or for rejection.

Sec. 2.—The following Reference Committees are hereby constituted to which shall be referred all matters as indicated by the titles of the committees:

(1) Sections and Section Work
(2) Rules and Order of Business
(3) Medical Education and Hospitals
(4) Legislation
(5) Public Relations
(6) Hygiene and Public Health
(7) Amendments to the Constitution and Bylaws
(8) Reports of Officers
(9) Credentials
(10) Insurance
(11) Miscellaneous Business

Where a report, resolution, measure, or proposition deals with more than one subject matter, reference thereof may, in the discretion of the President, be made (a) to as many reference Committees as are necessary to cover all subjects included therein; or (b) to only one Reference Committees as are necessary to cover all subjects the scope of its reference the most important part of the matter referred.

No report of any Reference Committee shall be rejected on the ground that it covers something not included in the matters which such Committee was created to consider.

Sec. 3.—The time and place of meetings of all reference committees shall be publicly posted, and all meetings of all reference committees shall be open to all members of the Association.

Officers and chairmen of all committees whose reports are referred to reference committees shall have the right to appear and be heard before the respective committees to which such references are made, in regard to their reports.

CHAPTER XXVI.—COUNTY SOCIETIES

Section 1.—All county societies now in affiliation with this Association or those which may hereafter be organized in this state, which have adopted principles of organization not in conflict with this Constitution and Bylaws, shall, on application, receive a charter from and become a component part of this Association. The acceptance or retention of this charter shall be regarded as a pledge on the part of said component society to conduct itself in harmony with the letter and spirit of this Constitution and Bylaws and other rules and resolutions of this Association.

Sec. 2.—Charters shall be issued only upon approval of the Council and shall be signed by the President and Executive Secretary of this Association. The Council shall have authority to revoke the charter of any component society whose actions are in conflict with the letter and spirit of this Constitution and Bylaws.

Sec. 3.—Only one component medical society shall be chartered in any county. Where more than one county society exists, friendly overtures and concessions shall be made, with the aid of the Councilor for the district if necessary, and all of the members brought into one organization. In case of failure to unite, an appeal may be made to the Council, which shall decide what action shall be taken.

Sec. 4.—Each county society shall be judge of the qualifications of its own members, but, as such societies are the only portals to this Association and to the American Medical Association, every reputable and legally registered physician who holds a degree of Doctor of Medicine or a degree of Bachelor of Medicine, and who does not practice or claim to practice, nor lend his support to, any exclusive system of medicine, shall be entitled to membership. Before a charter is issued to any county society, full and ample notice and opportunity shall

be given to every physician in the county to become a member.

Sec. 5.—Any physician who may feel aggrieved by the action of the society of his county in refusing him membership, or in suspending or expelling him, shall have the right to appeal to the Council, and its decision shall be final.

Sec. 6.—In hearing appeals the Council may admit oral or written evidence as in its judgment will best and most fairly present the facts, but in case of every appeal, both as a board and as individual Councilors in district and county work, efforts at conciliation and compromise shall precede all such hearings.

Sec. 7.—When a member in good standing in a component society moves to another county in this state, his name shall be transferred without cost to the roster of the county society into whose jurisdiction he moves, provided the transfer is approved by majority vote of the membership of said society to which the transfer is proposed.

Sec. 8.—A physician living on or near a county line may hold his membership in that county most convenient for him to attend, on permission of the society in whose jurisdiction he has his office or has the major part of his practice.

Sec. 9.—Each component society shall have general direction of the affairs of the profession in its county, and its influence shall be constantly exerted for bettering the scientific, moral and professional status of every physician in the county; and systematic efforts shall be made by each member, and by the society as a whole, to increase the membership until it embraces every qualified and honorable physician in the county.

Sec. 10.—At the annual business meeting for election of other officers, in advance of the Annual Convention of this Association, each county society shall elect delegates and alternates to represent it in the House of Delegates of this Association, and the secretary of the society shall send a list of such delegates and alternates to the Executive Secretary of this Association annually on or before February first.

Sec. 11.—The secretary of each component society shall keep a roster of all its members and of the non-affiliated registered physicians of the county, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this state, and such other information as may be deemed necessary. In keeping such roster the secretary shall note any changes in the personnel of the profession by death, or by removal to or from the county, and in making his annual report he shall be certain to account for every physician who has lived in the county during the year.

The secretary of each component society shall prepare and send to the Councilor of his district a quarterly report briefly stating the activities of his county society including meetings, programs, changes in officers and personnel of membership. A copy of this quarterly report to the Councilor shall also be sent to the Executive Secretary of the State Association. The State Association shall supply each county secretary a form for these reports.

Sec. 12.—The fiscal year of the Association shall be from October 1 to September 30 of the succeeding year. The dues shall be collected by the calendar year and payable in advance.

The secretary of each component society shall forward the dues for his society, together with the roster of officers and members and list of non-affiliated physicians of the county, to the Executive Secretary of this Association, on or before January 1 of each year and he shall promptly report thereafter the names of any new members elected to membership in his society, and promptly forward to the Executive Secretary of this Association the dues for such new members.

The dues shall be the same for all members and entitle the members to all benefits, including the publications of this Association, from the time of paying the dues to the close of the year only. Provided, however, that physicians elected to their first membership in this Association during the first nine months of any year shall pay the regular annual dues for that year; and those elected to their first membership after October 1 of any one year shall pay fifty percent of the annual dues as dues for the remainder of that year. Interns and residents shall pay $10.00 a year annual dues during their term of service in the hospital.

In the event the county society remits a member's dues on account of financial hardship, the secretary of the county medical society shall recommend in writing to the councilor of his district the remission of the state association dues of said member of the society, showing why such recommendation should be granted. The councilor in turn shall present the recommendation to the Council, which shall have the power to remit such dues.

Sec. 13.—Any county society which fails to pay its dues or make the report required by February 1 of each year shall be held suspended, and none of its members or delegates shall be permitted to receive any of the publications of the Association or participate in any of the business or proceedings of the Association or of the House of Delegates until such requirements have been met.

Sec. 14.—Each county society shall be held responsible for the faithfulness in the performance of duty on the part of its secretary in making reports and remitting dues to the Association.

Sec. 15.—Each component society shall have its own Constitution and Bylaws, which shall not be in conflict with the Constitution or Bylaws either of this Association or of the American Medical Association. An up-to-date copy thereof shall be filed with the Executive Secretary of the Indiana State Medical Association not later than May 1 of each

calendar year, or where such copy is so on file and no change has been made, then it shall be sufficient to file a certificate to that effect with said Executive Secretary.

CHAPTER XXVII.—COUNCILOR DISTRICT MEDICAL SOCIETIES

Section 1.—A Councilor District Medical Society, hereinafter called the District Society, shall be a society whose members consist of the members of the County Medical Societies in the Counties which constitute the Councilor District, provided such members of County Medical Societies have paid their membership dues in the District Society.

Sec. 2.—The State shall be divided into thirteen (1) Councilor Districts with the boundary lines and numbers of each District to be as follows:

First District — Posey, Vanderburgh, Warrick, Spencer, Perry, Pike and Gibson Counties.

Second District—Knox, Daviess, Martin, Monroe, Owen, Greene and Sullivan Counties.

Third District — Dubois, Crawford, Harrison, Floyd, Clark, Scott, Washington, Orange and Lawrence Counties.

Fourth District—Jackson, Jennings, Jefferson, Switzerland, Ohio, Dearborn, Ripley, Decatur, Bartholomew and Brown Counties.

Fifth District—Clay, Vigo, Vermillion, Parke and Putnam Counties.

Sixth District—Shelby, Rush, Fayette, Franklin, Union, Wayne, Henry and Hancock Counties.

Seventh District—Morgan, Johnson, Marion and Hendricks Counties.

Eighth District—Madison, Delaware, Randolph, Jay and Blackford Counties.

Ninth District — Fountain, Montgomery, Boone, Hamilton, Tipton, Clinton, Tippecanoe, Warren, Benton and White Counties.

Tenth District — Newton, Jasper, Porter and Lake Counties.

Eleventh District — Carroll, Howard, Grant, Huntington, Wabash, Miami and Cass Counties.

Twelfth District—Wells, Adams, Whitley, Allen, Noble, DeKalb, LaGrange and Steuben Counties.

Thirteenth District—Pulaski, Fulton, Kosciusko, Marshall, Starke, LaPorte, St. Joseph and Elkhart Counties.

Sec. 3.—Each District Society shall adopt a Constitution and Bylaws, which shall not conflict with the Constitution and Bylaws of the State Association, and only one District Society shall exist within any one Councilor District. The authorized District Society in each Councilor District shall receive a charter from the State Association, and the Secretary of the District Society shall have custody of the charter.

Sec. 4.—Each District Society shall organize by electing a President, a Secretary, and a Treasurer and a Councilor and Alternate Councilor as the current Councilor term and Alternate Councilor term for the district expires, and such others as may be provided for in its Constitution and Bylaws. The office of Secretary and Treasurer may be held by the same physician. The Councilor shall continue to have the same duties and terms as are set forth in the Constitution and Bylaws of this Association.

Sec. 5.—The dues of the District Society, in an amount fixed by the District Society to meet the District Society needs, shall be collected by the Secretaries of the component County Societies and delivered to the Treasurer of the District Society. The Secretary of each District Society shall report to the office of the State Association the names and addresses of the members of his District Society, together with a copy of the minutes of each meeting of the District Society.

Sec. 6.—Each District Society shall meet at least once each year at a time and place to be fixed by the District Society. On or before January 1st of each year each District Society shall notify the headquarters of the State Association of the time and place of the annual District meeting for that year; but if no such notification has been received in the headquarters on or before the January meeting of the Council, the Councilor shall fix the time and place of the District meeting, and notice of such meeting shall be sent to the members of the County Medical Societies in such District.

Sec. 7.—Whenever a District Society is to elect a Councilor and/or Alternate, the headquarters office of the State Association shall so notify the individual members of such District Society not later than the first of March of the year in which the election is to occur.

Sec. 8.—The District Society shall send to the headquarters office of the State Association a copy of its program showing the time and place of its meetings, early enough that the headquarters office may notify all members within the District of the meeting at least thirty (30) days prior to the date thereof.

CHAPTER XXVIII.—MISCELLANEOUS

Section 1.—The deliberations of this Association shall be governed by parliamentary usage as contained in Robert's Rules of Order, when not in conflict with this Constitution and Bylaws.

Sec. 2.—The Principles of Medical Ethics of the American Medical Association shall govern the conduct of members in their relations to each other and to the public.

CHAPTER XXIX.—MEDICAL DEFENSE

Section 1.—One dollar and twenty-five cents out of the annual dues of each member of the Association shall be set aside as a special fund for medical defense.

Sec. 2.—The administration of medical defense of this Association shall be intrusted to the Executive Committee, which shall constitute the Medical Defense Committee of the Association.

Sec. 3.—This Committee shall have full authority governing all matters pertaining to this Chapter. In order to secure to any physician sued or against whom claim is made a fair and full presentation of his defense, the Committee shall have power to enter into an agreement with such physician to furnish to him funds with which to employ and pay one attorney of his choice and such other expenses as the Committee may approve as necessary to a fair and full presentation of his defense. Provided, always, that the attorney selected by the physician must be of good reputation and standing in his profession and the terms of employment, including the fees to be paid, must be approved by the Committee in each case in advance of such agreement. Provided, further, that the Executive Committee shall set a limit to the amount which may be so expended in connection with any one claim or case.

Sec. 4.—The Treasurer of the Indiana State Medical Association shall be custodian of the defense fund, separately kept, and shall give such additional bond as may be demanded by the Medical Defense Committee. Payments out of this fund shall be made only upon approval of the Executive Committee, by checks signed by the Treasurer and the Chairman of the Council.

Sec. 5.—The Medical Defense Committee shall make an annual report to the House of Delegates of the cases in which it has been of service to members and furnish an account of the money received and expended, such report to be published in THE JOURNAL of the Indiana State Medical Association at the time and in the manner that reports of other committees of the Association are published.

Sec. 6.—This Association shall not be liable for any damage awarded, but shall be liable only for such expenses for the legal defense of its members as may be incurred in accordance with the terms of these Bylaws.

Sec. 7.—The Association shall not undertake the defense of a member in any case in which the member who applies for medical defense by the Association has failed to pay his annual dues for the year in which services were rendered which are the basis of the suit; and medical defense by the Association shall not be available in any suit based on services rendered during any period of delinquency in the payment of dues. Dues are payable on January 1, and become delinquent on February 1 of each year. The membership card of this Association, duly signed and dated by the Executive Secretary, shall be considered the only *bona fide* evidence of payment of dues or membership in this Association.

The Indiana State Medical Association shall in no case provide medical defense against any action for alleged malpractice against any physician unless such physician was a member of this Association in good standing at the time the services which are the basis of the suit were rendered.

Sec. 8.—A member desiring to avail himself of the services of the Medical Defense Committee in connection with litigation brought or threatened must send to the Executive Secretary of the Association for an application blank. After completing the data concerning the case he shall submit to a local committee of his county medical society—to be composed of the President, Secretary and one other member in good standing who may be nominated by the defendant—a full statement of the question at issue, including the diagnosis and treatment of the case and the names of physicians, nurses and other persons having knowledge of the same, who may be summoned as witnesses.

Sec. 9.—The committee of the county medical society shall immediately, after an investigation of all the circumstances and facts, transmit its report, with recommendations, to the Medical Defense Committee of this Association.

Sec. 10.—In the event that the county committee shall fail to recommend the case as one worthy of the recognition of this Association, a direct appeal may be made to the Medical Defense Committee of this Association, whose decision shall be final.

Sec. 11.—Suits brought against the estate of a deceased member shall be defended as if that member were alive; provided that such member was in good standing in the Association at the time of his death and that services for which indemnity is asked were rendered while the deceased was a member in good standing.

Sec. 12.—Medical defense shall not be available to members living outside of the State of Indiana at the time services were rendered for which indemnity is claimed.

Sec. 13.—The Medical Defense Committee shall have power to adopt such other rules, not in conflict with the foregoing, as in their judgment may seem necessary.

Sec. 14.—Medical defense as provided for by this Association shall be available to members under the terms stated in these Bylaws only in the defense of civil action for alleged malpractice, and shall not be available if such alleged malpractice occurred when the member was under the influence of any intoxicant or narcotic while rendering the service in question.

CHAPTER XXX.—DIVISION OF FEES

This Association does not countenance or tolerate fee-splitting, division of fees, or commission paying

directly or indirectly, and any member found guilty shall be expelled from membership.

CHAPTER XXXI.—INVESTMENT OF SURPLUS FUNDS

Section 1.—The investment of all surplus funds of this Association shall be under the direct control and management of the Executive Committee subject to instructions in regard thereto which may be given by the Council at its option. The Executive Committee shall have the right and is encouraged to obtain the advice and counsel of the investment departments of any bank or trust company of Indianapolis in regard to the discharge of the duties covered by this chapter of the Bylaws.

CHAPTER XXXII.—AMENDMENTS

Section 1.—These Bylaws may be amended at any Annual Convention by a majority vote of all the delegates present at that convention, after the amendment has lain on the table for one day.

Sec. 2.—Upon the adoption of this Constitution and Bylaws all previous Constitutions and Bylaws are hereby repealed.

Medicine At Law

DECISIONS AND OPINIONS

Highlights of recent court actions pertaining to health and medicine from *The Citation* prepared by the Law Division of AMA.

Recovery Realized in Sponge Case—A 35-year-old Brooklyn woman was awarded $80,000 in damages because Bellevue Hospital surgeons left a sponge and metal clamp in her stomach during an operation in August, 1958. The plaintiff in this action had sought $150,000 claiming the surgeons "did not use reasonable and proper care in performing surgery." The Brooklyn woman, employed as a nurse's aide at Bellevue, was operated on again two months following the first surgery. *Clara Sams Wright v. City of New York*, Sup. Ct. of the State of N.Y. County of New York (Feb. 6, 1962).

Promise to Pay Mother's Medical Bills Unenforceable — A physician who relied upon an oral promise of a son and daughter that they would pay their mother's medical bills if her estate did not pay them failed to collect for his services. The mother left no estate on her death and the promises were unenforceable.

By her husband's will, the mother was left the residue of his estate "for the duration of her lifetime, with the right and privilege to use such part, or all, of both principal and income as may be necessary for her reasonable comfort and support." Upon her death, the balance of the estate was to go to another relative. Although there was an estate of approximately $24,000 left at the time of the mother's death, it was technically the estate of her deceased husband, not her estate. Accordingly, the medical bills were not chargeable against the estate.

Assurances by the children to the physician that the mother had a large estate were not deceitful or negligent misrepresentations. "Laymen are not expected to know the legal labyrinth and legerdemain which distinguishes a life estate with the power to consume from a fee simple interest," the New Hampshire Supreme Court said. The alleged promise of the children was unenforceable under the Statute of Frauds, since it was an oral promise to pay the debt of another. As an independent contract, it was unenforceable, the Court said, because there was no consideration. There was no benefit to the children, since the balance of the estate did not go to them, and there was no detriment to the physician, since he had no claim against the husband's estate. —*Quinn v. Tuttle*, 177 A. 2d 391 (N.H., Jan. 29, 1962).

Damages Against Physician for Prenatal Injury Allowed in Washington—A judgment for $89,000 against a physician for prenatal injuries to a child resulting from negligence in caring for the mother was affirmed by the Supreme Court of the State of Washington. The child was born with cerebral palsy in a Caesarean delivery. The physician was charged with negligence in (1) failing to detect and treat a serious anemic condition of the mother, (2) attempting a normal delivery when he should have known that the pelvic opening was too small, and (3) failing to make the Caesarean delivery soon enough.

Deciding the question for the first time,

Continued



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the Supreme Court decided to follow the modern trend of recognizing liability for prenatal injury. It agreed with a statement that a denial of liability would "do reverence to an outmoded, timeworn fiction not founded on fact and within common knowledge untrue and unjustified."

The court said that there was adequate medical testimony that the failure to correct the mother's anemia could have caused the child to suffer anoxia which was the probable cause of the child's cerebral palsy. The court also rejected objections to jury instructions and to the admissability of evidence.—*Seattle-First National Bank v. Rankin*, 367 P. 2d 835 (Wash., Jan. 4, 1962).

Res Ipsa Applied in Severance of Facial Nerve During Mastoidectomy—A judgment against a surgeon for negligently severing a patient's facial nerve during a mastoidectomy was affirmed by an intermediate appellate court in California. The court upheld the application of the doctrine of res ipsa loquitur, under which an inference of negligence is permitted from an untoward result.

In California, the jury is permitted to decide whether the factual situation is such as to permit the application of the doctrine, if the evidence is sufficient to permit submission of the question. There are three factual prerequisites: (a) the untoward result must be of a kind which ordinarily does not occur in the absence of someone's negligence, (b) it must be caused by an agency or instrumentality within the exclusive control of the surgeon, and (c) it must not have been due to any voluntary action or contribution on the part of the patient.

The Court said that there were five main categories of evidence which would permit a jury to find that the severance of the nerve would not ordinarily have occurred in the absence of negligence. These are as follows: (1) The fact that the nerve is encased in solid bone indicates that severance is not likely to occur without severe external traumatic force. (2) The rarity of occurrence of such an injury, coupled with the practical impossibility of the injury under normal conditions indicates a likelihood of negligence. (3) Medical testimony indicated that severance of the nerve is not likely to occur if standard care is used. (4) The fact that four normal safeguards generally followed in the operation should have precluded severance of the nerve. (5) The surgeon admitted that he was "at fault" and paid the patient's subsequent medical expenses. The court also held that the second and third prerequisites for application of the doctrine were clearly established.—*Cho v. Kempler*, 2 Cal. Rptr. 167 (Cal., Jan. 25, 1960).

Surgeon Liable for Chemical Burn During Operation — A judgment for $11,000 against a surgeon for an unexplained chemical burn on the ankle suffered by a patient during an operation was affirmed on appeal by the Minnesota Supreme Court. The liability of the surgeon was upheld, although he was not personally negligent and there was no direct evidence of negligence on the part of any member of the surgical team.

During a hysterectomy, the surgeon noted abnormality of the patient's appendix and decided to remove it. The stump of the appendix was cauterized by use of a highly caustic phenol solution. While the patient was being removed to the recovery room, a gray indented area was first noted on the skin of her left ankle. This later developed into a third-degree burn which required surgery and a skin graft.

The Court approved instructions to the jury which ruled that the surgeon could not be held liable for anything that he personally did or did not do during the operation, but that he could be held liable for any negligence which occurred in the operating room during the course of the surgical procedure by anyone who had anything to do with the operation. It said that all of the hospital personnel who assisted in the operation were the borrowed servants of the surgeon.

The Court also said that an inference that someone on the surgical team was negligent and that the negligence caused the burn was permitted under the doctrine of the res ipsa loquitur. It held that the evidence clearly established that the burn must have been



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***eunoia:** A normal mental state (Stedman's Medical Dictionary).

†Favorably alters tension/anxiety.

caused by some of the phenol solution dropping on the patient's ankle during the operation. It found that the surgeon had exclusive control or the duty to exercise control over the use of the phenol solution during the operation. It held that there was ample evidence to permit the jury to find that the phenol burn would not ordinarily have occurred in the absence of negligence. *Jensen v. Linner,* 108 N.W. 2d 705 (Minn., April 7, 1961).

Jury May Accept Part of Testimony of Medical Witness—Although the professional negligence of a physician must be established by testimony of a medical witness, a jury is free to accept part of that testimony and to reject part of it, the Supreme Court of Minnesota ruled. Accordingly, a conflict in such testimony does not bar submission of a patient's claim to the jury.

A directed verdict for a physician was improper, the Court said, where the jury could have found a physician negligent by accepting part of the testimony of the one medical witness who testified and rejecting parts of his testimony. During surgery for an abdominal hernia, the physician cut an intestine. Fluid and feces began draining from the patient's abdominal incision. Nothing was done for this condition except to apply gauze dressings. The patient was allowed to go home with this condition still existing. Later the patient went to the physician's office and the physician placed a large piece of adhesive tape over the incision.

Finally another physician took charge of the case. He cleaned and drained the incision and then performed surgery to close the opening in the intestine. This second physician was the only medical witness called in the case. On direct examination, his testimony tended to show that the postoperative care given by the first physician did not conform to the standard of care prevailing in the community. On cross examination, however, his testimony tended to absolve the first physician of negligence. The court said that this conflict should not bar submission of the question of professional negligence to the jury. *McKinzie v. Siegel,* 112 N.W. 2d 353 (Minn., Dec. 1, 1961).

No Damages for Loss of Teeth During Tonsillectomy—A directed verdict in favor of a surgeon was entered in suit in which he was charged with causing a nine-year-old boy to lose two front teeth while under anesthetic for removal of tonsils and adenoids. The surgeon testified that he found the teeth to be loose and removed them with his thumb and fingers to avoid the danger that they might fall down the boy's throat during the operation. The boy and his mother testified that the teeth were not loose at the start of the operation.—*Figliudo v. Tivilini,* Circuit Court of Cook County, Illinois, Docket No. 53S-947 (Dec. 5, 1961). ◄



"I think you overweight politicians shouldn't try to keep up with the President by playing touch football."

INDIANA STATE BOARD OF HEALTH

MONTHLY REPORT — April, 1962

Disease	Apr. 1962	Mar. 1962	Feb. 1962	Apr. 1961	Apr. 1960
Animal Bites	785	430	342	527	633
Chickenpox	468	605	593	613	548
Conjunctivitis	97	139	141	105	130
Diphtheria	2	0	1	1	0
Dysentery, Unspecified	34	69	86	25	25
Impetigo	81	80	111	79	84
Infectious Hepatitis	212	111	136	285	77
Infectious Mononucleosis	32	23	50	29	20
Influenza	750	2206	9752	437	781
Measles (Rubeola-Rubella)	1723	1257	755	1022	2028
Meningitis, Meningococcal	5	5	4	5	5
Meningitis, Other	6	12	16	9	12
Mumps	450	397	511	1001	441
Pertussis	26	12	7	3	38
Pneumonia	124	152	263	173	159
Poliomyelitis	0	1	1	1	1
Streptococcal Infections	530	693	727	691	1098
Tinea Capitis	8	5	36	22	39
Tuberculosis (Active)	78	90	135	Not Available	Not Available

From *The Journal* Fifty Years Ago

. . . In preparing instruments they should be free from all rust or blood and boiled completely immersed in water containing a small amount of sodium bicarbonate, or, as lately suggested, sodium hydrate, for at least fifteen minutes, after which they should be delivered to the head nurse on the tray that is contained in all good sterilizers. Knives become dull by boiling and are better sterilized by placing them in alcohol or a strong carbolic solution for an hour previous to use. If an instrument is dropped during an operation there should be no haste in sterilizing same. It should be washed and allowed to boil at least fifteen minutes and returned to the head nurse on the sterile tray, and not, as is often seen, picked up, placed in the sterilizer for two or three minutes, then lifted from boiler with forceps that have been immersed in alcohol and handed to the surgeon with the idea that it is sterile.

In sterilizing the gloves, each glove should be carefully tested for holes, after which a small piece of gauze should be passed into the glove and the pair should be so wrapped, that the rubber surfaces do not come in contact with each other, thus preventing them from becoming adhered. They should be boiled in plain water for at least twenty minutes, after which they should be removed on the sterile tray to the head nurse and she can place them in sterile water. There should always be an extra pair of gloves for the surgeon and his assistant.

Ed. B. Ruschli, M.D. A Plea for Better Asepsis in Abdominal and Pelvic Surgery. *JISMA* June, 1912.

ABSTRACTS

BOOK REVIEWS

HISTOPATHOLOGY OF THE SKIN

Walter F. Lever, M.D., J. B. Lippincott Co., Third Edition, 1961. $16.50. 653 pages, four color plates, 320 illustrations.

In the thirteen years that have passed since the appearance of the first edition of this work, it has maintained its unchallenged place as THE definitive monograph in its chosen field. It is hard to imagine a pathologist or dermatologist who does not have this volume ready for immediate consultation. No hospital library can afford to be without a copy.

Dr. Lever continues to limit himself severely to the purely anatomical aspects of his topic eschewing the rapidly expanding knowledge of the underlying biochemical mechanisms that create the pathology in the first place. It is to be hoped that he will permit himself in future editions to comments in this area.

The paper is excellent, the binding superb and the profusion of illustrations exhilarating. It is a pity that there are only a few plates depicting these conditions in color. I am looking at a piece of "throw-away" literature put out by CIBA as a "diagnostic guide to selected dermatoses in general practice". Why could not such truly magnificent Kodachromes be utilized in a monograph like the one we are discussing?

The bibliographies at the end of each chapter have been brought up to date and the glossary on pages 631 to 634 is a model of compressed information presented in capsule form. Every doctor alive will find in this volume something interesting, practical, useful and even entertaining.

ARNOLD LIEBERMAN, M.D.
New York, N. Y.

LIGHT COAGULATION

Gerd Meyer-Schwickerath, M.D., (Translated by Stephen M. Drance, M.D.), The C. V. Mosby Company, St. Louis, 1960. 114 pages.

The advent and acceptance of light coagulation for the ophthalmologist's armamentarium is now well established. To more fully appreciate and understand this instrument, it would seem appropriate that its developer write of his experiences. Such a text is "Light Coagulation" by Dr. Gerd Meyer-Schwickerath.

The book is divided into four chapters. The first is concerned with the history and clinical application of radiation burns to the retina. The second section describes the instrument, technics, and patient preparation for this type therapy.

The third chapter outlines the uses for photocoagulation and elaborates upon the author's extensive experience. The impressions and opinions offered by Dr. Meyer-Schwickerath are very lucidly presented. Also thoroughly discussed are the post operative progress, results and complications of the many conditions so treated. Particular attention is devoted to its application in retinal detachments. The last chapter covers the attachment used for iris and surface coagulation.

All chapters are augmented by informative illustrations. Credit must also be given Dr. Drance who capably translated the original manuscript. This timely book is of value particularly for those using the light coagulator and also those doing detachment surgery. A great deal of current information is contained in this excellent monograph. For this reason, it should rank high on the reading list of all ophthalmologists.

MICHAEL H. LASHMET, M.D.
Indianapolis

THE CHEMISTRY OF HEART FAILURE

William C. Holland, M.D., Richard L. Klein, Ph.D., Charles C. Thomas, Springfield, Ill., 1959. $5.50. 116 pages and 16 figures.

This very compact little lecture is an integral part of the series devoted to Living Chemistry. The authors assume a modicum of basic knowledge—then proceed to summarize, clarify and bring one up to date in this extremely active frontier of medicine.

Chapter II presents in a mere eight pages the elements of thermodynamics about as simply and clearly as anything I have seen. Just as trenchant is the chapter on "The Chemistry of Heart Failure." Any general practitioner who graduated more than a few years back would benefit greatly by even a cursory reading of chapter XI on the action of digitalis. Even the expert cardiologist and biochemist would find a model presentation of topics that, at times, prove to be a difficult teaching problem.

Seldom have I read anything more rewarding; the authors are to be congratulated for their efforts. The publisher is to be commended for the moderate price, excellent format and legible type.

ARNOLD LIEBERMAN, M.D.
New York, N. Y.

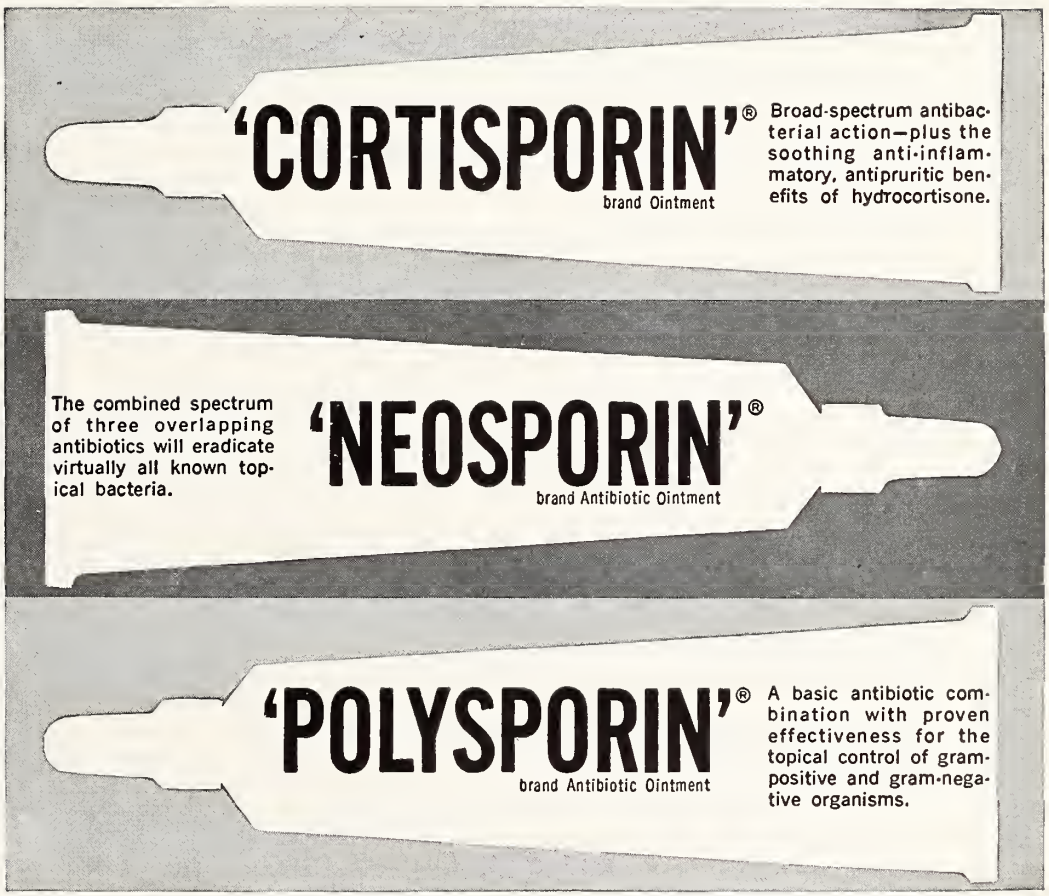
Abstracts From Various Literature, Prepared by AMA

CLASSIFICATION AND PROGNOSIS OF THYROID CARCINOMA STUDY OF 885 CASES OBSERVED IN A 30-YEAR PERIOD

The 885 primary thyroid carcinomas were diagnosed and treated at the Mayo Clinic over the period 1926 through 1955. They have been classified into 4 types: papillary, follicular, solid, and

Continued

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anaplastic. Papillary carcinoma, representing approximately 60% of the total, occurs in all age groups and is the most readily curable of all types. Regional nodes are involved in approximately 40% of cases but distant metastasis is uncommon. Follicular carcinoma is basically an encapsulated tumor that invades vascular channels or the adjacent thyroid. Metastasis is to lungs and bones and not to regional lymph nodes. Patients whose tumors manifest equivocal or minimal invasive tendencies are readily curable; moderate to marked invasion of vessels is associated with a death rate of approximately 50% from carcinoma. Solid carcinoma with amyloid stroma resembles papillary carcinoma in lack of encapsulation and in marked involvement of regional nodes. Although the tumor is of slow growth, at least one third of the patients have died of thyroid carcinoma. Anaplastic carcinoma appears to be a uniformly fatal disease regardless of method of treatment.

Woolner, L. B., Beahrs, O. H., Black, B. M. et al.: Classification and Prognosis of Thyroid Carcinoma: Study of 885 Cases Observed in a 30-Year Period. *Am. J. Surg.* 102:354 Sept., 1961.

PHENYLKETONURIC CHILDREN AND THEIR SIBLINGS

The neurological status and intelligence of 8 phenylketonuric children placed on low phenylalanine diet before the age of 3 years were compared with that of 11 unaffected and 3 untreated siblings. Mean intelligence of treated children was significantly higher than that of untreated siblings and this was especially marked in the children treated before the age of 6 months. However, treated cases were less intelligent than their unaffected siblings. Neurological findings paralleled results of intelligence testing. Present and previous findings were combined to estimate the relationship between age of starting diet and intelligence outcome. It appeared that intelligence loss due to phenylketonuria is relatively great in the early months of life and that the primary effect of diet is to prevent further decline rather than to restore loss. Early initiation of treatment was suggested.

Berman, P. W., Graham, F. K., Eichman, P. L., Waisman, H. A.: Psychological and Neurological Status of Diet-Treated Phenylketonuric Children and Their Siblings. *Pediatrics* 28:924 Dec. 1961.

DEATH FROM HYPOTHERMIA IN STEATORRHEA

Death from hypothermia was observed in two patients suffering from lifelong steatorrhea. There was no response to hydrocortisone or tri-iodothyronine; only to warming. Special thermometers are needed to establish hypothermia. Patients with steatorrhea should avoid exposure to cold.

Dent, C. E., Stokes, J. F. Carpenter, M. E.: Death from Hypothermia in Steatorrhea, *Lancet* (London) 1:748, April 8, 1961.

MALLORY WEISS SYNDROME

The Mallory Weiss syndrome consists of postemetic, linear, mucosal tears at the gastroesophageal junction, which may produce massive upper GI. bleeding. A case is presented in which the diagnosis was made preoperatively and successful surgical treatment accomplished. The clues in diagnosis and the proper treatment are discussed.

Glotzer, P., Elias, K.: Mallory Weiss Syndrome, *New Eng. J. of Med.*, 264:817, April 20, 1961.

UNILATERAL ABSENCE OF THE TESTIS

The state of monorchism, due to complete failure of development of one testis, is recognized, but few cases have been reported. The distinction between concealment and complete absence is of importance because, whereas the latter state is probably harmless, there is evidence that the abdominal testis is sufficiently prone to malignant change to make its removal from the abdominal cavity desirable, even if this entails orchidectomy in the event of failure to obtain a satisfactory scrotal position. Eighteen patients (9 to 15 years old) were explored surgically because no testis could be detected on one side. The dilemma created by failure to locate a suspected abdominal testis is resolved if the vas deferens is used as a guide. This will lead the surgeon either to the testis or to a blind ending, demonstrating true absence of the testis on that side. The value of this method is demonstrated in eight cases of unilateral absence of the testis; the presence of the vas deferens is a constant feature in this state. Attention is drawn to the pitfall offered by an elongated epididymis well below the abdominal testis into the inguinal canal.

Tibbs, D. J.: Unilateral Absence of the Testis: Eight Cases of True Monorchism, *Brit. J. of Surg.* 48:601 May, 1961.

DAMAGE TO CHROMOSOMES BY THERAPEUTIC DOSES OF RADIOIODINE

Chromosomal abnormalities, both of number and structure, were seen in blood cell cultures from patients recently treated with radioiodine. In four cases with thyrotoxicosis receiving doses near 10 millicurie (mc.), changes were moderate. In two cases of thyroid cancer receiving 100 mc. and 150 mc. changes were severe, comparable to those produced by 250 rads to the spine. Besides raising the problem of the possibility of leukmogenic effect of radioiodine in large doses, this offers a new method of biological comparison of different forms of radiation.

Boyd, E., Buchanan, W. W., Lennox, B.: Damage

to Chromosomes by Therapeutic Doses of Radioiodine, *Lancet* (London) 1:977, May 6, 1961.

GASTRIC OPERATIONS AND VAGOTOMY

Vagotomy plus some type of gastric operation was done in 207 patients. Results of this procedure, after two to 15 years, are given and compared to conventional partial resection alone. Indications for operation in 207 cases are given. The effect of operation upon acid values, pain, weight, etc., are recorded. Recurrent ulcer was noted in 5.4%; this closely parallels recurrence of ulcer after partial gastric resection alone. In general, vagotomy has not improved the results of gastric surgery for peptic ulcer. Vagotomy may be a useful adjunct in surgery, but adequate partial gastrectomy should continue to be employed for most patients with complicated duodenal ulcer. Most studies of hemigastrectomy and vagotomy are over too short a period after operation to draw valid conclusions or to compare with results of partial resection alone.

Marshall, S. F., Freedman, A. N.: Gastric Operations and Vagotomy, *Ann. of Surg.*, 153:940, June 1961.

RISK OF INTERRUPTING LONG-TERM ANTICOAGULANT TREATMENT

Thromboembolic complications, both fatal and nonfatal, were observed more frequently ($p < 0.01$) in patients on long-term anticoagulation during the first month after interruption of treatment for hemorrhage (14 out of 45) than after interruption of treatment for elective reasons (one out of 53). These rebound complications could not be definitely related to the use of vitamin K_1, transfusions, or the ischemic effects of the hemorrhage. A hypercoagulable state after interruption of treatment because of hemorrhage is postulated.

Sise, H. S., Mochos, C. B., Gauthier, J. Becker, R.: Risk of Interrupting Long-Term Anticoagulant Treatment, *Circulation* 24:1137, Nov., 1961.

PEDIATRIC CASE OF PARATHION POISONING TREATED WITH 2-PAM

This account of a near-fatal case of organic phosphorus insecticide poisoning, successfully treated with an investigational drug, 2-pyridine aldoximine methiodide (2-PAM), should be of interest to all physicians, especially those in agricultural areas.

Quinby, G. E., Clappison, G. B.: Near-Fatal Pediatric Case of Parathion Poisoning Treated with 2-PAM, *Arch. of Environ. Health*, 3:543, Nov., 1961.

THROMBOCYTOPENIC PURPURA

The proper role of splenectomy and adrenal steroid therapy in the management of idiopathic thrombocytopenic purpura is controversial. However, review of a recent five-year experience with 87 adult patients with this disorder, at the Mayo Clinic, led to the conclusion that splenectomy is clearly superior to the use of adrenal steroids in the definitive treatment of chronic idiopathic thrombocytopenic purpura in adults. Splenectomy is also effective in adults with idiopathic thrombocytopenic purpura; but medical therapy, including administration of adrenal steroids, seems preferable as an initial program because in some of these patients the disease follows a self-limited course. Systemic lupus erythematosus has not developed subsequently in any of the 62 adult patients in this study who underwent splenectomy.

Bunting, W. L., Kiely, J. M., Campbell, D. C.: Idiopathic Thrombocytopenic Purpura, *Arch. Intern. Med.* 108:733, Nov., 1961.

PANCREATITIS ASSOCIATED WITH STEROID THERAPY

Six patients, aged 16 to 63, without evidence of previous pancreatic disease, developed acute pancreatitis while receiving steroid therapy. In each case the diagnosis was confirmed by surgery or autopsy. Pathologic studies showed acute pancreatitis, fat necrosis and focal acinar dilatation. There was no associated gastro-intestinal or biliary tract disease. None of the patients' primary diseases are known to predispose to the development of pancreatitis. Previous experimental studies in steroid-treated rabbits, autopsy studies in steroid-treated patients, and four individual reports of similar cases provided initial evidence that steroids may induce pancreatitis. The present study supports this concept. The diagnosis of pancreatitis should be considered when abdominal pain occurs in patients receiving steroids, particularly during prolonged or high dose therapy.

Nelp, W. B.: Acute Pancreatitis Associated with Steroid Therapy, *Arch. Intern. Med.*, 108:702, Nov., 1961.

EFFECTIVE CONTROL OF STAPHYLOCOCCI IN A NURSERY

Staphylococcal colonization was successfully prevented in a newborn nursery. Application of pHisoHex® in the delivery room and once daily thereafter resulted in an overall colonization rate of 1.3% among 777 infants sampled at four body sites. Nasal colonization was eliminated without the use of intranasal medication. No attempts were made to control staphylococcal carriage among personnel or mothers. Only four instances of mild staphylococcal infection occurred among 547 infants followed carefully for six months. Three additional cases of mild infection were reported from the remainder of the 5,965 infants born during the period of the study. One instance of maternal staphylococcal mastitis was also reported. Almost all of these infections seemed to have been acquired at home. Prevention of colonization in the hospital seems to minimize neonatal and maternal staphylococcal disease. Untoward reactions to pHisoHex® were minimal.

Simon, H. J., Yaffe, S. J., Gluck, L.: Effective Control of Staphylococci in a Nursery, *New Eng. J. Med.* 265:1171, Dec. 14, 1961. ◄

FUTURE MEETINGS, SEMINARS, COURSES

Annual Otolaryngologic Assembly Set for October 20-26 in Chicago

The University of Illinois College of Medicine Department of Otolaryngology will offer an intensive postgraduate basic and clinical program under the direction of Dr. Emanuel M. Skolnik, October 20-26. This Assembly is designed to bring to specialists a wide variety of current advances in management, therapy and philosophies. Review of basic morphologic features under the direction of Dr. Maurice F. Snitman and Dr. Frederic J. Pollock is also included, and will feature laboratory demonstrations and prosection, all augmented by visual aids.

Interested physicians should direct communications to the Department of Otolaryngology, University of Illinois College of Medicine, 1853 West Polk Street, Chicago 12, Illinois.

11th Annual TB Symposium Set For July 9-13 in New York

The 11th Annual Symposium for General Practitioners on Tuberculosis and other Pulmonary Diseases will be conducted at Saranac Lake, New York, this year July 9 through 13. The course is acceptable for 27 hours of Category I credit with the American Academy of General Practice. The New York State Academy of General Practice and the College of General Practice of Canada are two of the sponsors of the meeting. The registration fee for the five-day course is $75.00. A program of scenic tours has been planned for families. Further information may be obtained by writing the Registrar, P. O. Box 627, Saranac Lake, N. Y.

Ob-Gyn Part I Exams Scheduled; New, Reopened Deadline Set

Applications for certification in the American Board of Obstetrics and Gynecology, new and reopened, Part I, and requests for re-examination in Part II are now being accepted. All applications and requests for re-examination are to be received in the Office of the Executive Secretary and Treasurer on or before the deadline date of *July 1, 1962.* No applications will be accepted after that date.

Candidates are urged to review the current Bulletin of the Board, which may be acquired by writing to the Executive Secretary, in order that they be well informed of the present requirements prior to submitting application.

After July 1, 1962, this Board will require a minimum of three (3) years of approved progressive residency training for admission to the examinations. After this date, training by preceptorship will not be acceptable.

Diplomates of this Board are urged to notify the office of the Executive Secretary of a change in address. Information may be obtained by writing to the secretary, Robert L. Faulkner, M.D., 2105 Adelbert Rd., Cleveland 6, Ohio.

Chest Physicians Set Chicago Meeting

The American College of Chest Physicians will hold its five-day annual meeting at the Morrison Hotel, Chicago, June 21 to 25. A comprehensive scientific program will be presented, in addition to the popular Fireside Conferences. On Monday, June 25, there will be a joint meeting of the College and the AMA at McCormick Place. This program will include round table luncheon sessions.

Rheumatic Diseases Course Offered

A postgraduate course on Rheumatic Diseases will be conducted at the Edgewater Beach Hotel on Saturday and Sunday, June 23 and 24, before the AMA meeting. It will carry 10 hours of category two credit for the AAGP. Registration fee is $20.00.

23rd ANNUAL X-RAY CONVENTION

The Indiana Society of X-ray Technicians will hold its 23rd annual convention October 5th and 6th in the Keenan Hotel, Fort Wayne, Ind.

American Cancer Society Scientific Session October 22-23 in New York

The American Cancer Society will hold its annual Scientific Session at the Biltmore Hotel in New York City on October 22 and 23. The general subject for the two days will be "The Clinical Impact of a Quarter Century of Cancer Research." The papers will emphasize the research developments which have clinical application today. Further information may be obtained by writing Dr. Roald N. Grant, 521 W. 57th St., New York, 19. ◄

Antismoking Drive

Strong attacks on the government-financed Central Council for Health Education and on the tobacco companies were made in a report from the Royal College of Physicians. Four years ago after the Medical Research Council found that smoking played a big part in the increase of deaths from lung cancer, the Ministry of Health announced that local authorities should take steps to inform the public of this finding, but there is little evidence that any steps have been taken apart from meager efforts to educate school children.

Between 1956 and 1960, the local authorities and the Central Council for Health Education spent less than $14,000 on antismoking propaganda, while nearly $112 million was spent on advertising by tobacco industries. The report comments on the change of policy to "romantic" advertising which seems to be addressed increasingly to young people who may not yet have started smoking. The report recommends more restrictions on smoking in public places and on tobacco advertising, as well as more effective bars on the sale of cigarettes to children, and the establishment of antismoking clinics to help those who find it difficult to give up smoking. It also recommends that the tax should be lowered on pipe tobaccos and cigars and raised on cigarettes.

JAMA, April 28, 1962.



ALUMINUM ALLERGY TAGS AVAILABLE FROM INVENTOR

Allergy tags, brightly embossed on aluminum, may be obtained from John M. Lee, Ligonier, Pa., inventor of the tag. The tags are made for wrist or necklace wear, are about the size of a fifty cent piece, and are engraved to order with medical information such as "I am taking anticoagulants," "No antitetanus serum," "Allergic to eggs", "Diabetic," "Sensitive to ———," etc. Tags may be purchased at $2.00 each plus engraving costs, by writing Mr. Lee.

Mr. Ralph E. Hamill, co-counsel for the Indiana State Medical Association, has been elected as Grand Master of the International Supreme Council, Order of DeMolay. He has been a member of the Supreme Council since 1949.

Dr. Emmett B. Lamb Elected

Dr. Emmett B. Lamb of Indianapolis was elected Secretary of the American Industrial Health Conference at its recent annual meeting in Chicago. Dr. Hedwig S. Kuhn of Hammond conducted a refresher course on the subject of "Ophthalmology in Industry," and Dr. William H. Scoins of Fort Wayne participated in a panel discussion on "Disability Evaluation for Retirement." Nearly 2000 industrial physicians from all parts of the United States attended the meeting.

Sears-Roebuck Foundation Offers Medical Students Study Program

Dr. Walter Portteus, Chairman of the Medical Advisory Board of the Sears-Roebuck Foundation, and the President of the Foundation, Mr. James T. Griffin, have announced a pilot program for the locating of eight medical students for a period of two months each in eight of the communities which have participated in the Foundation's Community Medical Assistance Program.

Scholarships will be paid the students and the communities will provide food and lodging for their two-month stay. The students will study and work with doctors in each community. Experiences of the students are to be reported in the Journal of the Student AMA. In the meantime the Foundation reports that four communities have voted to participate in the Foundation program for the building of medical facilities to attract

doctors and are starting their fund raising campaigns.

Convalescent Inn in Phoenix Opens

The White Angel Convalescent Inn was opened recently in Phoenix, Arizona, and is available for the care of patients requiring medical supervision with rehabilitation services. A doctor's referral is required for admission. Details and room rates may be obtained by writing the Inn at 1845 E. Thomas Road, Phoenix 16.

AMPAC Committee Banquet Will Be June 24 in Chicago

Sen. John G. Tower of Texas, and Rep. Harold B. McSween of Louisiana will be two of the top speakers at the $25-a-plate banquet given by the American Medical Political Action Committee Sunday, June 24th, at 7 p.m. in the Grand Ballroom of Chicago's Palmer House.

Physicians and their wives, as well as others interested in political education and action by the medical profession, are urged by Dr. Gunnar Gundersen, AMPAC's chairman, to attend the banquet and participate in other activities scheduled for the day. More than 750 persons are expected to join Sen. Tower and Rep. McSween at dinner, reservations for which are now being made through AMPAC, 520 N. Michigan Ave., Chicago 11, Ill.

"Many physicians and their wives who had planned to arrive Monday for the AMA's 111th Annual Meeting have now rearranged their schedules to arrive Saturday or Sunday," Doctor Gundersen said.

An Indianapolis surgeon, Dr. W. Foster Montgomery, discussed congenital defects and surgery at a recent meeting of the Inter-American Congress on Genetics in Los Angeles, Calif.

Dr. Francis L. Land of Fort Wayne was elected to the Board of Directors of the American Academy of General Practice at its recent annual meeting at Las Vegas, Nevada. Dr. Albert E. Ritt of St. Paul, Minnesota was named president-elect, and Dr. James D. Murphy of Fort Worth, Texas, started his term as president. ◄

Diets for Children with Phenylketonuria

Phenylketonuria (PKU) is now recognized as one cause of mental retardation. If this metabolic disturbance can be identified in the early weeks or months of life by urine or serological tests, special diet low in phenylalanine offers a good chance to prevent brain damage and the associated symptoms of mental retardation.

The special low phenylalanine diets are relative expensive depending on the size and age of the child. In instances of families financially unable to provide the diet for their children with PKU, the Indiana State Board of Health, in cooperation with the Indiana State Department of Public Welfare, will assist these families in procuring the diet. This program has been endorsed by the Council of the Indiana State Medical Association.

Further information on the above program may be obtained from the Division of Maternal and Child Health, Indiana State Board of Health, 1330 West Michigan Street, Indianapolis, or the Crippled Children Services, Indiana State Department of Public Welfare, 702 State Office Building, Indianapolis.

Deaths

Stanley A. Clark, M.D.

Dr. Stanley A. Clark, a physician in South Bend for 47 years, died April 17 at his home.

A member of the ISMA 50-year-club, Dr. Clark brought the first x-ray machine to South Bend in 1901 and was the first physician there to use x-rays in diagnosing tuberculosis.

He was a founder of the South Bend Medical Foundation, a member of the board of managers of the Healthwin Hospital for 43 years, former president of the staff of Memorial Hospital and former president of the National Bank & Trust Co. Dr. Clark also was St. Joseph County Coroner from 1906 through 1910 and was one of the founders of the St. Joseph Cancer Society.

Charles R. Clarke, M.D.

Dr. Charles Robertson Clarke, a DeKalb county doctor 47 years, died April 25 in Parkview Memorial Hospital, Ft. Wayne.

Dr. Clarke, 85, received a certificate of distinction from ISMA for 50 years' service in the practice of medicine. He was a member of the 50-Year Club and was former DeKalb county health officer.

William L. Cole, M.D.

Dr. William Cole, 54, died April 15 at Deaconess Hospital in Evansville. A general practitioner, Dr. Cole was graduated from Rush Medical College in 1933.

Henderson L. Miller, M.D.

Dr. H. L. Miller, a member of the ISMA 50-year-club, passed away April 11 at West Baden.

Dr. Miller, 87, a former Orange County coroner, began his practice in West Baden in 1911. He had practiced at Leopold, Ind., after being graduated from the old Louisville Medical College in 1903. He was a captain in the Medical Corps during World War I.

Alonzo S. Neely, M.D.

Dr. Alonzo S. Neely, 83, retired Harrison County physician, died April 17 in the home of a daughter.

Dr. Neely, a member of the ISMA 50-year-club, was graduated from the Kentucky School of Medicine in 1904 and began his practice in New Albany. He later practiced in Harrison County, New Middletown, Indianapolis and Bogota, Tex., before retiring a few years ago.

Walter M. Stout, M.D.

Dr. Walter M. Stout, a native of Silver Lake, died April 4 in the New Castle Clinic.

Dr. Stout, a member of the ISMA 50-year-club, had been associated with the clinic since coming to New Castle in 1919. Graduated from Indiana University in 1915, Dr. Stout served in both World War I and II and was president of the Henry County Tuberculosis Association for many years. ◄

County News

Bartholomew-Brown

The Bartholomew-Brown County Medical Society met April 1 and approved support of 25% of the budget for the South Central Indiana Regional Science Fair to be held at Bloomington. Society business and committee reports were given at a meeting April 11.

Carroll

Field Secretary Howard Grindstaff showed the Annis film and reported on the national picture on current legislation before the April 4 meeting of the Carroll County Medical Society. There were 23 there, including members, their wives and office personnel.

Clark

There were 24 members present at the March 20 meeting of the Clark County Medical Society. Delegate to the House of Representatives reported on special meeting and the public relations committee reported on

Continued

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Clay

Dr. Robert A. Chevalier discussed congestive heart failure before the Clay County Medical Society meeting April 10. There were 40 doctors and nurses present.

Dearborn-Ohio

"Recent Advances in Neurosurgery" was the topic of a talk given April 12 before the Dearborn-Ohio County Medical Society. Dr. Robert McLaurin, professor of Neurosurgery at the University of Cincinnati, was the speaker. There were 11 members present and two guests.

Fountain-Warren

Nine members and 15 guests attended the April 5 meeting of the Fountain-Warren County Medical Society. Plans were made for a fish fry and scientific meeting June 14.

Howard

Forty members of the Howard County Medical Society heard a talk by Dr. Robert K. Gibson April 3 at their monthly meeting. He discussed "Electrolytes and Fluid Balance in Infants."

Huntington

Dr. John Gould, Ft. Wayne, spoke on "Sterility Problems and Management" before 15 members of the Huntington County Medical Society meeting April 10.

Jay

Thirteen members of the Jay County Medical Society heard Field Secretary Howard Grindstaff discuss the King-Anderson bill and show the Annis film April 4 in Portland.

Jefferson-Switzerland

"Atomic Radiation and Its Effects" was the subject of a talk by Dr. Merritt Alcorn at the April 3 meeting of the Jefferson-Switzerland County Medical Society. There were 21 members present.

Knox

Thirty members of the Knox County Medical Society met April 17 in Vincennes. Field Secretary R. J. Amick attended the meeting and reported on the King-Anderson bill and the actions that should be taken.

Lawrence

"M. D.'s and Medical News" was the subject discussed before the April 4 meeting of the Lawrence County Medical Society. Mr. Stuart Riley, from a Bedford newspaper, was the speaker. There were 21 members present.

Montgomery

Dr. Joseph Ross discussed "Emphysema" with 24 members of the Montgomery County Medical Society April 19.

Orange

Eight members of the Orange County Medical Society attended the April 3 meeting of the society.

Shelby

The April 4 meeting of the Shelby County Medical Society featured a talk by Dr. R. F. Whitcomb. Sixteen members and guests heard a discussion on "Review of Obstetrics as Practiced at the U. S. Major Hospital in Recent Years."

Steuben

Nine members of the Steuben County Medical Society met April 2 at the Town House in Angola. Intradermal skin testing for tuberculosis is to be substituted for the patch test in local schools. County medical society finances were explained and Blue Shield policies discussed.

Wayne-Union

Abraham Ringel, Hospital Cancer Registry Consultant, Service Section, Medical Affairs Department of the American Cancer Society, spoke before 35 members of the Wayne-Union County Medical Society meeting April 10. His topic was "Tumor Registry." ◄

Association News

EXECUTIVE COMMITTEE

April 28, 1962

Meeting called to order at 6:00 p.m., with the following members present: Don E. Wood, M. D., chairman; Wendell E. Covalt, M. D.; Harry R. Stimson, M. D.; Maurice E. Glock, M. D.; John M. Paris, M. D.

Frank B. Ramsey, M. D., editor of *The Journal;* Robert Hollowell, attorney; James A. Waggener, executive secretary.

Membership Report

Number of members as of December 31, 1961	4,338
1962 members as of March 31, 1962:	
Full dues paying	3,595
Residents and interns	142
Council remitted	28
Senior	366
Honorary	3
Military	41
Total 1962 members as of March 31, 1962	4,175
Number of members as of March 31, 1961	4,081
Gain over last year	94
Number of AMA members as of March 31, 1962	4,055
Total 1961 AMA members as of March 31, 1961	4,042
Gain over last year	13
1962 AMA members: Dues paying	3,469
Exempt, but active	586
	4,055
Number who have paid state dues but not AMA dues for 1962	120

Building Matters

The secretary announced that removal of the office from 1021 Hume Mansur Building to 3935 North Meridian Street would be completed the weekend of May 5, 6 and 7.

Annual Convention, French Lick, October 8, 9 and 10, 1962

The secretary read a letter from the French Lick Hotel concerning the arrangements for the annual meeting in October.

The secretary also reported on the scientific work program for the October meeting.

Headquarters Office

The employer's application for Blue Cross-Blue Shield covering the employees of the Indiana State Medical Association was reviewed and on motion of Drs. Stimson and Paris the secretary was authorized to renew the contract.

The secretary reported it would be necessary to purchase certain supplies for the new building, such as towels, toilet paper, etc., and by consent the secretary was instructed to use his best judgment and was authorized to obtain the necessary supplies.

The secretary presented proposals for janitorial service for the building, the lowest bidder being the Capital Maintenance Company. By consent the Committee authorized the secretary to employ this firm on a trial basis.

Treasurer's Office

Statements of Income and Expenses for the month ending March 31, 1962, were reviewed and, following discussion, in the absence of the treasurer, it was moved by Dr. Glock, duly seconded, that the treasurer be instructed to make a constant evaluation of the bond situation at least once each week with the appropriate officials at the bank. Motion carried.

On motion of Dr. Stimson the treasurer is to discuss with the bank the Association bonds maturing in 1962, 1963 and 1964, and other bonds of record and when they reach par or above the treasurer is to be instructed to authorize the bank to sell said bonds. Motion seconded by Dr. Covalt, and carried.

The auditor's quarterly report was reviewed and accepted on motion of Drs. Stimson and Paris.

Legislative Matters

The secretary reported on the letters which had been received from the Indiana delegation in Congress concerning HR 4222.

Organization Matters

Blue Cross-Blue Shield matters. Called to the attention of the Committee was a letter from Dr. Stimson to Dr. Paris concerning Blue Cross Board membership, a release from the National Association of Blue Shield Plans concerning the national Blue Shield program for persons over 65, and a resolution from the Indiana Society of Internal Medicine.

Correspondence between Dr. W. A. Shullenberger and the headquarters office concerning the request of the National Foundation for the Association to nominate three physicians to form an advisory committee for the scholarship program of the National Foundation was reviewed and on motion of Drs. Stimson and Covalt this matter is to be referred to the Commission on Voluntary Health Agencies for its recommendations.

The matter of the Indiana National Bank assisting the Association in the operation of the Student Loan Fund was again called to the attention of the Committee. The report was made that the Committee on Student Loan had not as yet met with the Indiana National Bank for further discussion of this matter and no concrete recommendation from the Student Loan Committee was available at this time. Action was deferred but

the matter is to be placed on the agenda for the next meeting.

The contents of a letter from James U. Guthrie, M. D., Peru, Indiana, were reviewed by the president for the information of the Committee.

A letter from the State Board of Health to Dr. Stimson concerning the recommendation for physicians on the Vision Advisory Committee of the Board of Health was read for the information of the Committee.

Renewal of membership in the United States Chamber of Commerce in the amount of $50.00 was approved by consent.

Correspondence from the Indiana Hospital Association concerning the establishment of a "dry run" accreditation committee composed of representatives of the Indiana Hospital Association, the Indiana State Medical Association, and the American Association of Medical Records Librarians was read and by consent it was agreed the secretary should obtain additional information concerning this subject before any action is taken.

A letter from the Indiana Traffic Safety Foundation requesting the cooperation of the Association in naming a representative to become a member of the Board of Trustees of the Safety Foundation was read and by consent it was agreed that the Commission on Public Health should be requested to make a recommendation for such an appointment.

A letter being circulated by the Indiana State Chiropractic Association, Inc. was read for the information of the Committee.

A letter from the president of the Indiana State Association of Medical Assistants requesting approval of the State Medical Association to make changes in its Constitution and Bylaws, namely, Article XII of the Constitution and Articles VII and IX of the Bylaws was reviewed, and these changes were approved on motion of Drs. Paris and Covalt.

A pamphlet regarding a national plan to combat mental retardation was reviewed for the information of the committee.

A letter from Dr. Lall G. Montgomery concerning a resolution on Essentials of an Approved Internship, introduced at the AMA meeting in 1954 by the Indiana State Medical Association was read and upon motion of Dr. Glock it was recommended that it be submitted to Dr. Frank Land and other delegates and that it be discussed before the Council, with the recommendation that the Indiana delegates to the AMA prepare an appropriate resolution for introduction at the June meeting of the AMA.

Request of the Indiana Chapter of the Student AMA for financial assistance from the Association to cover the cost of transporting representatives of the Indiana Student AMA to the national convention of the organization in Washington, D. C., was approved on motion of Drs. Stimson and Covalt. It was agreed to appropriate the sum of $270.00, which, it was understood, would pay the transportation of two Student AMA delegates.

A proposal from Mr. Donald Ostrom of the Department of Sociology of Purdue University concerning a study of nursing homes was reviewed and by consent it was agreed that this matter should be referred for decision to the Commission on Aging.

The request of the Indianapolis Press Club for a contribution of $35.00 to list the Association's name in the Gridiron program was denied by consent.

The Journal

Dr. Ramsey pointed out the fact that *The Journal* was losing money on carrying the professional cards in *The Journal* and suggested that as a matter of economy these cards might be discontinued. Upon motion of Drs. Paris and Glock it was recommended that the professional card advertising no longer serves a useful purpose and it was suggested that *The Journal* discontinue these cards.

The editor also pointed out that he had a proposal for reducing the weight of the inside paper in *The Journal* and he had obtained approval of the SMJAB on the use of lighter weight stock. Inasmuch as the SMJAB had given its approval, the editor was authorized to reduce the weight of stock in the printing of *The Journal*.

Request of the Eff Tee Sales Company to advertise its Breath-O'-Life Oxygen apparatus, which is portable, was presented to the Committee for its approval, and by consent it was agreed that this should be referred to Dr. John Hickam. If Dr. Hickam thinks the apparatus is suitable for the uses enumerated, the advertisement is to be accepted for *The Journal*.

Medical Defense

Upon motion of Drs. Glock and Stimson the section of the Bylaws dealing with medical defense are to be studied thoroughly by the Commission on Constitution and Bylaws, in consultation with the legal counsel of the Association. The Committee further recommended that the Commission make its recommendations directly to the Executive Committee. The provision that should be studied particularly is what coverage the physician has from an insurance standpoint.

Upon motion of Drs. Paris and Covalt the attorney is to be requested to prepare a new medical defense blank for use of physicians in applying for medical defense coverage. Such application should specify that a copy of the complaint, the insurance carrier's name, and the amount of insurance carried by the physician, are required.

Future Meetings

Conference on Rural Health, May 18-19, 1962, Des Moines, Iowa. On motion of Drs. Glock and

Stimson, the Commission on Public Health is to be authorized to send one member to this meeting.

AMA meeting, Chicago, June 25 to 29, 1962. The secretary reported on plans for the hospitality room for the AMA meeting and read a letter from the I.U. Alumni Association requesting permission to use the Indiana room as the headquarters room for the Alumni Association. This request was approved on motion of Drs. Glock and Stimson.

There being no further business the Committee adjourned to meet again on Saturday, June 2, at a time to be established by the chairman, and the AMA delegates and alternate delegates should probably be invited to attend this meeting.

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Photographs should be printed on glossy paper. Negatives cannot be used.

Illustrations are desirable. Selection of illustrations submitted at discretion of editor and editorial board members. Cost of color illustrations must be shared by the author.

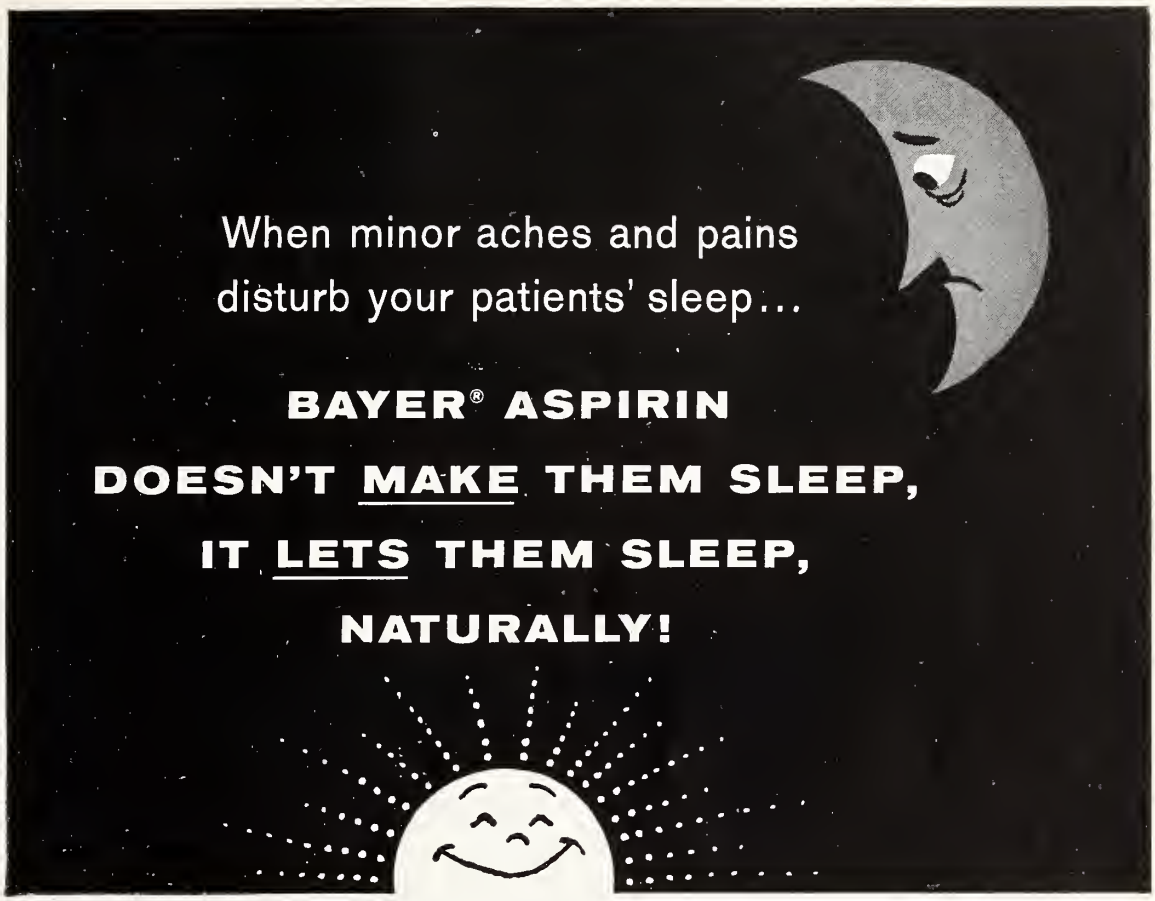
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This summary of what is happening in Washington is prepared by A.M.A.'s Capitol office and air-mailed to *The Journal* on the ninth of each month preceding month of issue.

MONTH IN WASHINGTON

WASHINGTON, D.C.—The American Medical Association has challenged the Kennedy Administration on the accuracy and legality of its propaganda campaign for the King-Anderson bill.

Dr. F. J. L. Blasingame, executive vice president of the AMA wired Attorney General Robert Kennedy about a booklet issued by the Department of Health, Education and Welfare. Dr. Blasingame said:

"This booklet lobbies for the enactment of the King-Anderson bill. This bill would raise social security taxes to provide limited health services to aged beneficiaries, regardless of whether they need financial help.

"The Department of Health, Education and Welfare has used tax funds, collected from everyone, to propagandize for a bill which many people and many groups have vigorously opposed. Under law, the publishing of this kind of a booklet without Congressional authority is a criminal act, punishable by fine or imprisonment, or both, and removal from office."

AMA President Dr. Leonard W. Larson wrote President Kennedy correcting a misstatement the Chief Executive made at a news conference.

The President told his news conference that "the AMA was one of the chief opponents of the Social Security system in the 30's."

Dr. Larson pointed out to Mr. Kennedy that the American Medical Association had never opposed the Social Security system, either before or after its adoption.

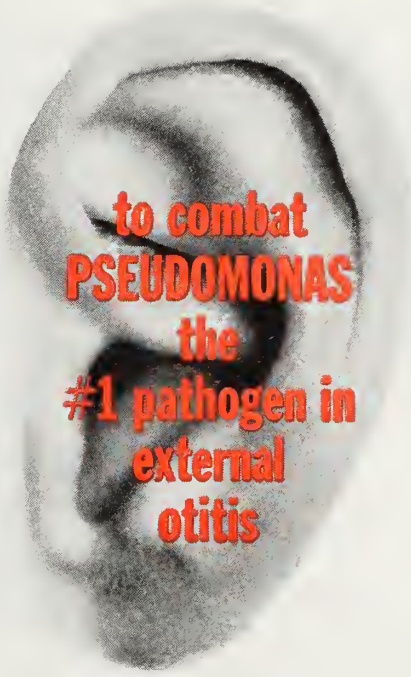
"The Association," Dr. Larson's letter said, "testified before Congress on only one section of the Social Security legislation, the section concerning extension of public health services. It should be noted that the AMA testified in support of this section."

Dr. Blasingame also called on the Justice Department to stop Cabinet members using taxpayers' money for lobbying purposes and to launch an investigation of "improper" lobbying activities of employees of the Department of HEW.

Dr. Blasingame in a letter to Attorney General Robert Kennedy listed more than a dozen incidents which he said violated federal statutes prohibiting lobbying by federal employees and officials.

"Government employees," Dr. Blasingame said, "are being sent out as speakers, at public meetings to urge enactment of the Administration's bill. This, in our opinion, is a clear violation of Title 18,

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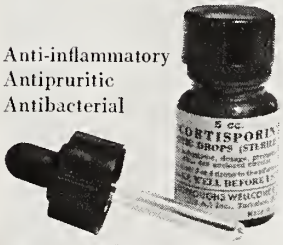
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Continued

Section 1913 of the U.S. Code on crimes and criminal procedure which prohibits among other things the use of 'personal services' for lobbying purposes."

Dr. Blasingame said that Secretary of Commerce Luther Hodges, Secretary of Labor Arthur Goldberg and Interior Secretary Stewart Udall were appearing at rallies concurrent with President Kennedy's appearance in Madison Square Garden in the Administration's campaign for the King-Anderson bill.

"We strongly protest the use of tax monies by these Cabinet members to lobby for a bill which is clearly not within the scope of their respective departments," Dr. Blasingame said. "I call on you to issue an injunction against this type of activity by these Cabinet members."

The AMA Executive Vice President also noted that between six and ten government employees "have been lobbying in the White House offices for several months" for the King-Anderson bill. He said the group occupying a four-room suite "has been writing television and radio scripts, drafting advertisements and helping with publicity releases for various organizations which are backing the King-Anderson bill."

Dr. Larson also urged that "the American people demand an honest accounting from the Department of Health, Education and Welfare on how much of their tax money the department is spending on lobbying for the King-Anderson bill."

"The people have a right to know how much of their tax money this federal agency is spending in lobbying for this piece of legislation," Dr. Larson said in a speech before the Academy of Medicine of Cincinnati.

AMERICAN PEOPLE SHOULD DEMAND AN ACCOUNTING

Dr. Larson said also that the National Council of Senior Citizens should be required to register as a lobbyist.

"This organization was founded by former Congressman Aime Forand for the express purpose of lobbying for passage of the King-Anderson bill," Dr. Larson said.

In a statement, Dr. Larson cited contradictory statements by two prominent advocates of President Kennedy's health-care-for-the-aged-bill—Ribicoff and Rep. Cecil R. King (D., Calif.).

"Mr. Ribicoff and Mr. King may be on the same team but they are in basic disagreement as to the extent of services Social Security should provide, and how much of an increase in taxes the public will tolerate to finance these services," Dr. Larson said.

Dr. Larson said: "This is what is happening, Secretary Ribicoff, in an effort to make the King-Anderson bill palatable to those fearing greater Federal taxes, is saying that the health care program will not be expanded because social security taxes have just about hit 10%—his estimate of the saturation point.

"Meanwhile, Mr. King, in order to gain the support of those who

Continued



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believe in the 'Federal government playing the role of Santa Claus' is promising increased Social Security benefits in the future."

CHIROPRACTORS UNABLE TO RENDER DIAGNOSIS

The American Medical Association opposed legislation that would permit beneficiaries of the Federal Employees' Compensation Act to utilize services of chiropractors.

In a letter to the chairman of the Senate Subcommittee on Employees Compensation, Dr. F. J. L. Blasingame, AMA executive vice president, said:

"Chiropractic is a pseudo-science which is not based on scientific methods and, therefore, should be recognized as what it is—a theory of cultism. It is premised on the theory that human illness is all related to the spinal column. It holds that the nerves that emanate from the spinal cord become impinged or 'pinched by the vertebrae, thereby causing malfunction and disease.'

"As a result of this theory, chiropractors claim that disease and illness such as allergies, diabetes, heart trouble and tonsillitis, to name a few, can be cured by adjusting or manipulating the spinal column. Such a theory, of course, runs counter to the established facts of medical science . . . .

"Chiropractors are not educated or equipped by either background or training to diagnose human illness. This inability to render a diagnosis coupled with their pseudo-scientific method of treatment, when taken into consideration in connection with their vociferous stand against life-saving vaccines and wonder drugs, precludes that any consideration be given them." ◄

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The following two papers were included in a program sponsored by the Indiana Commission on Forensic Sciences, Indiana State Board of Health and Indiana Coroners Association in May, 1961.

Poisons Versus Coroners, Physicians and Police

ROBERT B. FORNEY, Ph.D.*
Indianapolis

ONE OF MAN'S INALIENABLE rights, although not specified in the Constitution, is to die at his appointed hour from the ravages of time, disease or his own dissipation. He may justly expect, in a democracy, that his allotted span will not be shortened by avoidable accident, or the willful intent of some one not playing by the rules of our society. If he, himself, is law abiding, even without moral principles, he is obliged not to destroy his own life. One of the functions of law enforcement is to secure these rights and insist that this obligation is discharged.

The Coroner System

When the rules are broken, penalties must be quickly assessed to deter others so inclined. This, of course, is for the promotion of the general welfare. In addition, we are all aware of the important economic settlements legally dependent on cause of death. In a functioning free society the cause of death is of paramount importance. Under our coroner's system when the circumstances, much less the cause are questioned a coroner must investigate and render an opinion, the importance of which can not be underestimated. No one, including the coroner, can sensibly believe that he can make such judgments honestly, intelligently and accurately without maximum assistance. Whatever his specialty, whatever the case, he will require the specialties of others. It should be the aim as well as the business of government to provide the facilities he will require.

The services of the forensic pathologist are fundamentally essential before any real investigation can begin. On occasion this discipline is assisted by the contributions of toxicology.

Toxicology is the science of poisons. It is concerned with the physical and chemical properties of poisons. The toxicologist studies the effects of poisons if introduced into or upon the body—the way by which injury or death may be produced. To make this study analytical methods for the estimations of small amounts of poisons in body organs and parts must be designed and employed. The toxicologist must understand and help develop the use of antidotes in the treatment of poisoned people. Final-

* From the Toxicology Department, Indiana University Medical Center.

ly, the toxicologist must be able to interpret the results of his analyses and, therefore, must know which poisons, like arsenic, lead or mercury contaminate all human tissue and which ones like strychnine and morphine, are never present normally.

Poisons Hard to Define

Since most drugs, if misused, may be poisons, the toxicologist must determine how much of a substance one could expect to find following its therapeutic use. Poisons have been used with intent to injure only, but death resulted. Poisons have been used to produce death, and injury was the only result. On occasion the death may not result from the poison, at least directly, but from a superimposed medical cause such as a heart attack, pneumonia or shock, or even another incident; for example, a gunshot wound, strangulation or a blow. Poisons can produce a chronic illness of long duration which may or may not result ultimately in the death of the intoxicated. The interpretation of chemical analyses may, therefore, not be simple but are at the same time extremely vital if the cause of death is to be understood.

What then is a poison? Any substance which can produce injury or death? Sugar may be injurious to a diabetic, water may cause death in bowel obstruction. Botulinus, a bacterial toxin, is so poisonous that 70 ounces could kill the earth's entire human population. Aconitine is an alkaloid known for centuries and used in medicine as a counterirritant and is so toxic that a fatal dose for humans is a few milligrams—all you could put on the head of a pin. Aspirin kills more children than all the other drugs put together. The fatal dose of aspirin is several grams—twenty or thirty 5 grain tablets. All poisons are not drugs. Carbon monoxide accounts for many intoxications usually accidental. Ethyl alcohol, claimed by many to have excellent therapeutic properties, kills over 2,500 annually, and is certainly a poison. Poisons, then, are hard to define and limit. Generally a poison is considered to be any substance which, if introduced into or upon the body, can produce death or serious injury.

General Analyses will Define Specific Poison

In 1957, Indiana University's toxicology laboratory conducted general analyses for poisons in 19 cases. In such a case some grounds exist to suggest that a poison may be involved but no specific poison is indicated. A general analytical survey is then made of the materials submitted which will cover steam volatile poisons like alcohol, ethyl, methyl, etc.; chloral, cyanide and phenols; acidic compounds like aspirin, and barbiturates; basic compounds like morphine and strychnine; and heavy metals like lead, arsenic and mercury. This analysis takes approximately two weeks if no poison is discovered during the process. If a poison is discovered, fresh aliquots of the material submitted must then be reanalyzed for this poison to corroborate the initial finding and confirm the quantitation of it. On May 1st of this year, we received our twentieth general unknown for 1961. At this rate, we will receive approximately 60 cases this year.

In March of 1957 Governor Harold Handley signed into law engrossed House Bill Number 195, which empowered the trustees of Indiana University to create an Indiana State Department of Toxicology in the School of Medicine supported by the state with a special budget. This facility is available to coroners and other law enforcement agencies in Indiana for the payment of nominal fees to the University.

To make intelligent use of this laboratory certain responsibilities must be assumed by the investigator—coroner, or law enforcement officer.

Time Factor Should be Established

It is important to know the interval between the onset of symptoms and the collection of material for analysis or death, which ever occurs first. Many common poisons can not be found if specimens are not collected within 24-hours of the appearance of symptoms. They are either destroyed or eliminated. If the victim continues to breath after an exposure to carbon monoxide is over the carbon monoxide may disappear from the blood within four or five hours even though coma from the gas may continue for several days. Morphine

is usually lost within 24 hours. The early collections of body material is especially important if nonfatal amounts have been taken.

Record of the Symptoms

While many diseases produce symptoms closely associated with those seen in poisoning and even though they may be relatively non-specific, they should be recorded whenever possible. The presence of a particular symptom may be enough to direct attention to a special group or class of poison. For example, one would not expect to see convulsions in barbiturate poisoning any more than one would expect slow respirations with intoxication from belladonna alkaloids or cocaine or strychnine. Thus, it is important to note central nervous system disturbances, character of the pupils — whether dilated or constricted, appearance of the blood—color, presence of hemolysis, etc., color of the skin, odor on the breath, and color and odor of vomitus.

If the victim has vomited, it should be remembered that this may be the best source for obtaining the agent so it can be identified. Stomach contents or vomitus are more likely to contain the largest quantities of the poison, moreover, the isolated substance will be in an unchanged form so that reactions to specific test will be more characteristic of the pure material. Obviously, then, if the stomach has been washed the washings should be saved.

The Death or Accident Scene

It seems absurd to mention that all medicines available to the victim should be sent in along with recently used drinking vessels and any other material that could have been taken. Many drugs come in characteristic tablets or capsules and the finding of these near a body may save countless hours of work.

The scene of the death should be described, as this too may lend assistance, not only to the investigation, but to the toxicologist as well. It is to be remembered that carbon monoxide is one of the most common poisons encountered, especially in the winter time, accounting for nearly half of the poison deaths. Before death the victims are often stimulated to disarrange furniture and their own clothing while in a semicomatose condition. The scene may resemble one of a physical assault. Such a case occurred in Indiana: A father returned home after a weekend away at work to find his wife and two children who had been dead for an estimated 20 hours. The first impression was that it was the work of an assailant. All the bodies bore bruises and there was ample evidence of a struggle. The gas furnace was on and functioning properly and the pilot light in the hotwater heater was burning. The front door was unlocked. A check for carbon monoxide seemed reasonable and revealed that all three had died acute carbon monoxide deaths. In reconstructing the conditions, it was observed that the basement door had been open and there had been a fire in the living room fireplace. A faulty flue damper in the furnace in the basement failed to close and a large fire in the fireplace probably pulled the flue gasses into the living room. Blood in such cases may not always be the bright cherry-red of carbon monoxide hemoglobin.

"Virus X" Takes Blame

In another case involving seven people who were exposed to the fumes of a furnace by way of a faulty flue, the concentration was not relatively high. When the first four became consecutively sick, they in turn called the relatives to help. A man and woman were the first to arrive and when they also became ill with the same symptoms of nausea, vomiting, generalized weakness and headache, the seventh person, a lady was called. By this time the city health officer had diagnosed the trouble as being due to a strange "Virus X" and had closed the nearby school and quarantined the neighborhood. Those who were found dead did not have the cherry-red color associated with carbon monoxide poisoning. Their blood was quite dark in color. This sometimes happens and is due to the presence of reduced hemoglobin, chocolate brown in color, which masks the color of carbon monoxide hemoglobin and is formed when the victim ceases to respire a short time before the heart stops. It was the absence

of the cherry-red appearance of the bodies which caused the health officer not to consider carbon monoxide. The source of the gas was found to be due to a clogged flue and the blood of the three found in the house contained from 40 to 50% carboxyhemoglobin.

Postmortem Examination by Forensic Pathologist Imperative

A postmortem examination is desirable in any death. In a death, not readily explained, it is imperative. The examination should be made by a man trained for this type of investigation which is seldom made in the course of routine practice of pathology. The sooner this examination can be made, the better it will be, not only for the pathologist but for the toxicologist as well. It should be conducted before the body is embalmed and in an atmosphere free of preservatives. A body sprayed with a deodorant containing formaldehyde has made a vitally important analysis for alcohol in the tissues unreliable because this contamination interferes with the determination for not only alcohols but also aldehydes.

Use of Clean Separate Containers

The material obtained at autopsy should be placed in clean containers that may be sealed. Each different specimen must be placed in a separate container. The stomach and intestine should be tied off before either is removed. If the stomach or intestine is opened, the contents should be carefully separated and stored in separate containers. Some other tissue besides the gastrointestinal tract must be saved for analysis even in poisoning by corrosives such as strong acids or alkalis and salts. With the exception of fluorides and cyanides, corrosives can rarely be identified outside the stomach or gastrointestinal tract. The compound will either be decomposed or the difference between normal and toxic concentrations will not be significant.

Other poisons could be present in such tissues. The finding of lead in the tissues of a man would have verified a clinical diagnosis of lead poisoning from an industrial exposure had not further analysis revealed the presence of arsenic as well. Arsenic was not used by this industry. This finding led to the discovery of the duplicity of a wife who later confessed flavoring her husband's favorite dishes with lead arsenate.

Inside of the stomach is outside the body. In order to prove the role of a poison in causing death, aside from the corrosives such as strong acids and alkalis, the poison must be identified in some internal organ. A case has come to our attention where enough strychnine was found to be present in the stomach contents to account for death. Death actually was accomplished by a gun shot wound in the heart before lethal amounts of strychnine could be absorbed. The finding of much alcohol in stomach contents does not prove that it was absorbed and had any influence on the cause of death.

The analyst must report and interpret what he finds. If the containers are contaminated with poisons these may be reported as present in the specimens. Lead is commonly present in soft glass, rubber stoppers, etc. and tissue concentrations resulting from such contamination may be in line with those expected in chronic or acute intoxications.

Adequate Specimens—Proper Storage

It is imperative that adequate amounts and kinds of material be saved. At the time of the autopsy there will be an abundance after the pathologist has taken all that he desires. In many cases less than one milligram of a toxic substance per 100 grams of the tissue is all that will be present. More than this, a cardinal rule in toxicology, dictates that a portion of each material submitted should be saved so that the results of the analyses could be corroborated by another laboratory should the occasion demand it. Of the remaining specimen, no more than one-third can be used since positive findings of poison necessitates repeated analyses to insure accuracy of the findings. In the event of an accident, fresh aliquots must be available for analyses.

Naturally, if you are required to work with less than an optimum amount of material the analyses will be much more dif-

ficult. Yields of poison will necessarily be less and when you have purified the isolated material, you may not have enough for a proper number of identification tests. The greater the number of tests that can be made, the more certain the analyst can be of his results. It is an easy matter to dispose of any excess specimen, but it is pretty hard to get more if the body has been buried. Too often we receive requests to make a general analysis for poison on tissues that are sent to the laboratory in a test tube. Adequate specimens would consist of 500 grams each of liver and brain, at least one kidney, the intact stomach and contents, several feet of intestine, all the urine, 100 milliliters of blood, several grams of hair cut close to the scalp and several grams of long bone.

Quantitative estimates of poison must be made in several materials from the body. The relative concentration of alcohol in stomach contents, blood and urine may provide invaluable evidence to help fix the time of death and the time of drinking. An analysis of hair in an arsenic case may distinguish a rapidly acute death from a single administration, from a sub-acute or chronic intoxication resulting from more than one administration of arsenic over a period of weeks. Analysis of serial section of the intestinal tract may suggest the length of time before death the fatal dose was taken.

Since the results of the analyses may be used in court, it is necessary to store the material saved for long periods of time. This tissue is best preserved in a frozen state and facilities for doing this for at least a year must be available.

Proper Labeling and Handling

Once the specimens are taken and placed in proper containers, the containers should be sealed and labeled with the name of the deceased, the date and the name of the pathologist or person collecting the specimen.

The specimen should be identified. A pathologist should include his own autopsy number. This should be done promptly and the specimens refrigerated or frozen to prevent loss of volatile poisons. Decomposition of the tissue may result in the formation of degradation products which may be confused chemically with administered poisons. For example, certain ptomaines may be produced which will be extracted along with basic organic poisons and give similar reactions with many of the alkaloidal reagents. Under these circumstances most volatile poisons would be missed.

If the results of the analyses are to be used in court it is absolutely necessary that great care is exercised in transporting the material from the site of the postmortem examination to the analyst to insure that tampering with the material is not possible. It is desirable to have them transported by a police officer directly to the laboratory. He should keep a log of this transfer and obtain a receipt on delivery. His name and identification should be part of the laboratory's report. The analyst must store the specimens in locked compartments and work alone for this same reason. The preservation of the continuity of evidence begins with its collection and is the responsibility of the coroner until it reaches the examiner.

Embalming or Preservative Fluids

If the body has been embalmed, most volatile organic poisons could not be isolated and serious interference in the recovery of all non-volatile organic compounds would result. Formaldehyde reacts with cyanide to make condensation products as it does with other compounds so that characteristic reactions will not be obtainable. Tissues treated with formaldehyde are considerably more resistant to the solvent action of extraction fluids. In cases where this has happened recoveries of the sought-for poisons are much lower than one could, otherwise, obtain. Most embalming fluids contain methyl alcohol. Suspected methyl alcohol poisoning could not, therefore, be evaluated and the isolation of ethyl alcohol from tissues so treated becomes impractical.

I know of no embalming fluid in interstate commerce that now employs heavy metals or other poisons (with the exception of certain alcohols and aldehydes) in their

manufacture. Many exhumed bodies, that have been buried for some time, may have been prepared with materials so contaminated. Heavy metals, especially arsenic, were formerly common ingredients in preservative fluids for the dead. A hardening compound used in the visceral cavity consisting of plaster of paris and liberal amounts of arsenic has come to our attention. This particular practice is no longer employed by reputable embalmers. However, specimens of embalming fluids should be obtained in all cases where they have been used and no report can be complete under these circumstances without ruling out possible contamination of the tissues, by this means, with the very poison found.

Exhumed Bodies or Cremation

Exhumed bodies present a further problem of possible inhibition. Most bodies that have been exhumed in my presence have had relatively free access to the moisture in the surrounding soil—watertight caskets and vaults notwithstanding. In any case, samples of the surrounding soil, water and body wrappings must be preserved for analysis in order to rule out contamination from this source in the event a poison is found to be present.

Cremation renders an analysis for poisons virtually impossible with the exception of a few metals. It must be remembered that even these may have been present in the hardware of the casket in which the body was burned. The use of a casket in cremations is required in Indiana, as it is in most places.

Interpretation of Results

When, in a case of suspected poisoning, a careful investigation has been made; a good postmortem examination has been performed; the analyst has been supplied with adequate specimens properly labeled, stored and delivered promptly together with a report of the investigation and the gross findings of the autopsy; he can make a thorough search of the submitted material and the chances of either finding a poison or ruling poison out are excellent. When the analyses are completed, the toxicologist is faced with the last of his problems—the interpretation of the results. When all of these conditions have been met it is difficult to say with certainty that no poison was present simply because no poison was found. The deceased may have lived long enough so that the poison, if present to begin with, was reduced in concentration or altered in composition beyond the limits of the analytical procedures employed. The deceased may have been the victim of a drug idiosyncrasy, in which case, even finding the drug may prove nothing. It is always possible that the toxic substance may have been missed. For these reasons, it is usually more accurate to state, when the findings are negative, that an extensive search had been made and no poison was found to be present. This may seem to be avoiding the issue, but, in most cases, it is the most accurate statement that can be made.

In the practice of toxicology one must make a compromise with time. It would be possible to spend months making exhaustive tests in any given general unknown to rule out poisons, the presence of which is only remotely possible. The laboratory facilities are so limited that they must be judicially utilized. However, any reasonable investigation must be exhaustive regardless of the time involved.

Fatal Dose will Vary

When poison is found to be present, the interpretation of results is more critical. To estimate the role the poison played in contributing to the death, one would be greatly assisted if it were possible to calculate the total quantity absorbed. This is, of course, not possible. When one knows, through investigation, the form in which the poison was taken, possible loss by vomiting, whether food was in the stomach and the time elapsed between the taking of the poison and death; it is sometimes possible to have an idea of the minimum amount that has been taken. The fatal dose, it is certainly true, will vary greatly with individuals depending on size, age, sex, health, presence of drug idiosyncrasies, etc. It will vary with the rate at which the drug was administered and the route by which it

entered the body. Considering all of this, fairly reliable data on minimum fatal doses are known for many of the more common agents anyway, on the concentrations one may expect to find in internal organs associated with their therapeutic use, sub-lethal intoxication and fatalities resulting from them.

For many poisons like cyanide, strychnine or arsenic, one can state the role of the poison in causing death with reasonable surety. Their very presence or concentration is diagnostic. However, for others like mercury, analytical findings alone are not enough.

Under most circumstances if one finds abnormally high concentrations of mercury in body tissues, especially the kidney, accompanied with a clinical picture of mercury poisoning, one would be fairly safe in stating, as the cause of death, mercury poisoning. Often a clinical picture is not available because the victim died alone. We have shown that concentrations of mercury may be obtained in body tissues following the prolonged use of mercury diuretics, which are much higher than those associated with fatal acute mercury poisoning. If absorption is slow over long periods of time, mercury can be stored by the kidney without any apparent harm. If the same amount is absorbed rapidly, death will ensue.

In animals we have accomplished this using mercury bichloride by carefully administering it over a long period of time. In none of these cases was the damage to the proximal convoluted tubules of the kidney produced which is characteristic of mercury poisoning. If one is to assign mercury poisoning as the cause of death, one must have demonstrated typical damage to the kidney as well as high concentrations of mercury in the body tissues.

Proves Death Suicide not Homicide

Recently a question was raised by the survivors of a person, whose death had been investigated by a coroner, as to the accuracy of his conclusions. It had been discovered, by them, that a life insurance policy would have paid a double amount if the coroner had decided the death was a homicide and not a suicide. A careful postmortem examination had been made of the body very soon after death and internal organs were carefully selected and properly preserved. I reported large concentrations of sodium cyanide in the stomach contents and liver and kidney which were typical of cyanide poisoning. The plaintiff's allegation was that the cyanide had been introduced postmortem following a death from strangulation. The pathologist's report described evidence of necrosis in the esophagus and in the stomach mucosa which could not have taken place postmortem. From work done in our laboratory we were able to state that the concentration of cyanide found in the liver and kidney was typical of that found in cases of fatal cyanide poisoning and could not be the result of postmortem diffusion.

Report of Results

The toxicologist is responsible to the person making the request to provide him with a confidential report of findings and any pertinent comments or discussion which are necessary. In many cases premature publication of such reports makes the complete investigation by the coroner or police more difficult. Therefore, the coroner or police officer must use his own judgment in deciding what and when to report to the public. The toxicologist must reserve the right to discuss what ever appears in the press from his own laboratory following its release. This right should be exercised only to correct misunderstanding of the facts due to erroneous reporting and should never include opinions not based on his own work.

Investigation of unexplained death must always be a team effort. One man with one specialty cannot bring to bear all of the disciplines vital to such a task. The Commission on Forensic Science is trying to coordinate the basic specialties for the mutual benefit of all. Until they receive adequate support to fulfill their goals competent investigations will not always be made. There is no excuse, however, for not using the limited facilities available. When toxicology seems pertinent contact the toxicology laboratory as soon as possible to derive the greatest return from this service. ◄

Medico-Legal Jurisdiction

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THE U. S. COMMITTEE on Vital and Health Statistics in a very recent publication indicates that an approximate 20 to 30% of the 1,500,000 deaths registered in the nation each year come under the jurisdiction of a coroner or a medical examiner.[1] In Indiana, approximately 44,000 deaths are registered each year but only slightly more than ten percent of our total deaths are certified by the county coroner.[2] Since 1949 the local health officer has had responsibility for determining the cause of death in those instances where the death is due to natural causes and there is no attending physician.[3] The local health officers investigate and certify approximately four and one-half percent of the total deaths. This means that some 2,000 to 6,500 of the deaths which occur each year in our state and which would be the subject of medico-legal investigation by the national average are buried without any form of official investigation into the cause of death. The potential for criminal concealment under this situation is obvious.

At least to some extent, the laws of our state prescribing the duties of the coroner and the health officer must share responsibility for our situation. Jurisdiction of the coroner is defined only in general terms in our statutes and in borderline cases it is not too helpful. *Burns' 49-2904*, provides as follows:

> "Every coroner, as soon as he shall be notified that the dead body of any person supposed to have come to his death by violence or casualty, is within his county, shall immediately proceed to inquire, upon view of the body, how and in what manner he came to his death."

It is interesting to note, this law was promulgated in 1852 and has remained unchanged except for the abolishment of the coroner's jury. *Burns' Statutes 35-1904* provides:[4]

> "If the circumstances suggest that the death was caused by other than natural causes, and there is an attending physician he shall refer the case to the coroner for investigation. If the circumstances suggest that the death was caused by other than natural causes and there is no attending physician or the attending physician has failed to refer the case to the coroner, the local health officer shall refer such case to the coroner for investigation as prescribed by the statutes concerning coroners' duties. Any death coming under the supervision of any coroner shall be by him reported upon official death certificate blanks to the health officer having jurisdiction, within three days after the inquest is held and such death shall not be reported by any other person."

Your attention is particularly directed to the phrases, "supposed to have come to his death" . . . "if the circumstances suggest" and "by violence or casualty." While there is no intention to engage in an exercise of semantics, there is merit to the argument that these words are indicative of legislative intent. Perhaps the closest we can come to a practical and workable definition of the coroner's case is that it is a suspicious death. The suspicion, must of course be a reasonable one. It very probably should be more than a death of mysterious character or simply an unex-

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plained death. The suspicion should bear a reasonable connotation of death by violence or casualty. Law journal articles have indicated that a finding or reasonable suspicion of violence or casualty are the test of a coroner's case.[5]

Statute Confusing and Obstructive

The fact that an individual dies suddenly or unexpectedly who has been in apparent good health and who has not seen a physician professionally for years, without more information, is not a coroner's case. In such a death, the health officer is to investigate and certify the cause of death on the basis of information obtained in the investigation. Where death is due to disease or the wasting of vital forces of the body and there has been no physician in attendance, such death must be certified by the local health officer having jurisdiction at the place of death.

Under our statutes, the ultimate question of jurisdiction cannot be settled until the cause or causes of the death are determined, but in a significant number of cases the cause of death is not obvious and must be determined by investigation, yet this investigation will not take place until someone elects to take jurisdiction. If you are not confused at this point then I have failed to explain the problem.

Just where one gets off or on the merry-go-round of such circular reasoning I am not sure but as a practical matter the difficulty is often resolved in simple fashion. The funeral director must have a certification of the cause of death either prior to burial or within seven days following the death if a provisional certificate of death is used. If violence or casualty are not obviously present, the funeral director contacts the physician named by the family; if the physician is willing to sign the certificate of death, the body is buried.

If the physician refuses, the local health officer is contacted. He may request the funeral director to contact the coroner. If, in turn, the coroner refuses jurisdiction, the health officer is left with no choice and must furnish a certification of the cause of death. Putting it bluntly, the funeral director in the great majority of cases, makes the initial decision as to whether the death is a coroner's case, a matter for the health officer or the physician who attended the deceased. It is only in unusual circumstances that his decision is challenged. That there is not more controversy in this area may well be a tribute to the quality of our Indiana funeral directors.

Duties and Limitations

Under our laws, only three classes of individuals can certify the cause of death on the official certificate of death.[6] These are: (1) the physician last in attendance, (2) the coroner, and (3) the health officer. Since the death certificate is probably the most widely used and accepted document in proof of death it should be worthwhile to examine briefly the duties and limitations of those who have legal responsibility for certifying the cause of death.

The attending physician, by reasonable implication, has responsibility for certifying the cause of death when such death is due to natural causes. When is a physician the physician last in attendance? Our statutes do not provide a definition and the State Board of Health charged with responsibility for the death registration system administratively uses the standard that the physician qualifies as the attending physican so long as the contractual relationship of patient-physician remains unbroken.[7]

Frequently, this working standard fails to function in borderline cases and where death is due to a different condition than that for which the deceased was being treated. Let me pose a ridiculous but obvious example: the physician last sees his patient at 9:00 p.m. He expects death to occur during the night and so informs the family. At 10:00 p.m. someone unknown rushes into the room and shoots him. The patient is dead, his physician should not and likely would not sign the death certificate but would instead notify the coroner. Is the situation different if the patient fell from his bed or death resulted from an unanticipated therapeutic reaction?

Surprisingly, the question of attending physician is infrequently raised in our state and again our funeral directors have de-

veloped a very practical method for solving this problem. They ask the next of kin or other informant for the name of the deceased's physician and then call him or present him with the certificate of death for his certification. If the physician signs it the funeral director obtains his permit and proceeds with proper disposal of the remains. In effect, each individual physician determines whether or not he qualifies as the attending physician and great variations are found as to the time elapsed since the physician last saw his patient alive.

Reasonable Suspicion Essential

When does the coroner have jurisdiction? The test appears to be this: if the death is due to violence or casualty or there is a reasonable suspicion of violence or casualty, the coroner has jurisdiction. The suspicion must be something more than a mere absence of information. The Supreme Court of Indiana in *Sandy v Board of Comr's Morgan Co.* (1908)[8] points out that inquests and autopsies are authorized solely as an aid in the administration of the criminal law. A coroner is not justified in holding an autopsy in order to determine the cause of death for the certificate of death. Most medical men will agree that the sudden death of a youthful adult in apparent good health and with no recent history of having sought medical attention is in and of itself a suspicious death. Such deaths do not occur without a reason. But an absence of information under the reasoning of the *Sandy* case is not enough to confer jurisdiction upon the coroner. There must be a reasonable suspicion of violence or casualty before the coroner's jurisdiction attaches. One year after the *Sandy* case our Supreme Court indicated that reasonable suspicion of death resulting from violence or casualty was as essential to confer jurisdiction upon the coroner as that the body be found in the county.[9]

While I have found no Indiana cases strictly in point, there is ample authority in the courts of sister states for holding the coroner personally liable in ordering autopsy when he lacks jurisdiction.

An Illinois appellate case[10] states it this way, "the coroner's office gives him no right to enter any house of mourning at his mere option or caprice and take with him a doctor to perform an autopsy." According to the Kentucky courts,[11] the request of the coroner affords no protection to the surgeon performing an illegal autopsy if the coroner's order is unauthorized and the next of kin have a right of action for damages against the coroner and those who assist him. Not only is it true the coroner lacks jurisdiction to require an autopsy unless death is due to violence or casualty or reasonable suspicion of the same but there is authority to the effect he must not permit others to perform the autopsy against the wishes of the next of kin.[12]

In Missouri[13] a coroner permitted a pathologist employed by the compensation insurer to autopsy the body of a city employee in order that the results might be used in Workmens' Compensation proceedings. No one had suggested violence but death had followed a fall. The compensation insurer was held liable to the widow, not withstanding the fact that the coroner considered the autopsy necessary to complete the death certificate. In this case an award of $1,500 actual damages and $6,000 punitive damages was not considered excessive.

To a very considerable extent it would seem the courts of our state would protect the coroner acting in good faith who orders autopsy. But certainly the point can be reached where he is no longer acting under the cloak of his authority and personal liability could attach. Perhaps the most safe recommendation is that in borderline cases, the coroner should make every effort to obtain permission of the next of kin for the autopsy.

Coroner Lacks Jurisdiction in Sudden Death

The greater bulk of the unattended deaths involve the sudden decease of an apparently healthy individual who has not recently sought medical attention. Sudden death offers one of the most fertile fields for medico-legal investigation, yet in Indiana such death is not subject to jurisdiction by

the coroner. Our statutes provide if the death or stillbirth occurred without medical attendance, or if the physician last in attendance is physically or mentally unable to sign the certificate of death or stillbirth, the local health officer shall inquire into the cause of death from such person or persons having knowledge of the facts regarding the cause of death and certify the cause of death on the basis of such information.[14] Please note, the local health officer has no right to subpoena witnesses or records. He has no legal right to order an autopsy. Yet our laws expect him to arrive at a medical opinion as to the cause of death on the basis of some vague inquiry from persons having knowledge of the facts regarding the cause of death. Obviously, this requirement of the law makes assumptions there will be persons having such knowledge, that they will convey such information to the health officer, that such information will contain sufficient symptomatology to arrive at a medical opinion for a cause of death.

It should also be noted, the statute makes no requirement that the health officer view the body or visit the scene of death; perhaps this is unimportant as most physicians agree that only rarely will observation of a body dead of natural causes reveal the pathological event or failure of function that occasioned the death. Where the health officer has a complete void of information as to the cause of death, he cannot transfer the case to the coroner for the coroner has no jurisdiction unless there is reasonable suspicion of violence or casualty.[15]

. . . Probably Natural Causes

In a significant percentage of the Indiana deaths where the deceased has not received recent medical attention no examination of the body by a physician or enforcement official is ever made. It is not surprising that it has been said and not always in jest that if you want to poison your mother-in-law, do it in Indiana. To which it might be added, "do it in the fall of the year" when the coroner's autopsy budget is probably exhausted and the potential for thorough investigation correspondingly reduced. Seriously, let us suppose an apparent healthy adult faints in a downtown store. An ambulance is called and the individual dies in the hospital a few hours later without having regained consciousness. Without more information this is not a coroner's case and the health officer must determine the cause of death.

The family, if it can be located and is cooperative may be able to supply information concerning any recent illness or symtoms that would indicate the cause of death. If the family cannot be located, obviously, the permission for autopsy cannot be obtained or the family may deny the autopsy on basis of time delay or for other reasons. The health officer has no power to order autopsy. How, then, is the true cause of death obtained—it isn't—the death certificate will often reflect the health officers frustration in such terms as "unknown, probably natural causes". A few health officers resort to certifying all such cases as coronary conditions to avoid repeated letters from the State Board of Health requesting more information.

Death Registration System Defined

The death certificate in addition to supplying important and much needed mortality information performs another little recognized but nevertheless valuable service. The mere fact that our laws require a death certificate for every person dying in our state is in and of itself a forceful deterrent to criminal activity. It implies that every death will immediately come under the scrutiny of a physician or official investigator. As a practical matter, does it work out this way? In 1957 studies by the State Board of Health indicated serious defects in the death registration system. In order that you may assess the significance of the figures I will subsequently give you, let me first outline very briefly the mechanics of the Indiana death registration system.

When a person dies in our state the funeral director in charge of his interment must complete the personal particulars concerning the deceased on the certificate of death. The funeral director is then required to present the certificate of death to

the attending physician or coroner or health officer for his certification of the cause of death.[16] Unless a provisional certificate of death is used, the death certificate must be completed and turned over to the health officer who issues a burial-transit permit for disposal of the remains.

The theory of the system is that a physician or coroner will determine and provide a record of the cause of death before burial, cremation or other disposal of the remains are made. In other words, the system contemplates sufficient investigation to determine the cause of death will be made prior to disposal of the body by burial or cremation and prior to removing the body from the county where the death occurred.

Examination of the records of death for the year 1957 revealed that more than 22,000 deceased persons (almost 50% of the total deaths for the year) were buried before a certificate of death was filed with the health department. Obviously, it is somewhat difficult to conduct a thorough investigation after the body is buried. Of these 22,000 deaths more than 6,000 were buried before the physician signed the certificate of death. How many were buried before the physician knew his patient had died we had no way of determining but there are indications such situations do occur. Many factors operate to create this situation and a great effort was made by the State Board of Health to remedy the problem.

The provisional certificate of death system was established in order to provide the funeral director with more time to complete the certificate of death. Educational programs were undertaken to acquaint physicians, coroners, funeral directors and local health officers with the problems involved and their cooperation in alleviating the problem areas was requested. The response was gratifying.

During 1960, the number of burials prior to receipt of a certificate of death was reduced from 22,000 to 4,323. Admittedly this is real improvement but it is still a far cry from full compliance with our laws. The great bulk of late certificates were filed on the 8th and 9th day following death—several were filed more than 90 days after the death. The potential for adequate medico-legal investigation is greatly reduced under these circumstances and conversely the opportunity for criminal concealment is enhanced.

Detection of Criminal Activity Overemphasized

In discussions of the merits or evils of the coroners system versus the medical examiners system the detection of criminal activity or protection of the innocent is emphasized often to the exclusion of other benefits of improved investigation. Without question, the contributions to the general health and welfare of society through proper medico-legal investigations are not sufficiently recognized. Proper investigation particularly in the areas of the unexplained death, the sudden death and the death occurring without medical attendance have a significance apart from confirming or disproving criminal acts. Civil actions in our courts are frequently concerned with manner of death and the cause of death. Was it suicide or accident or did death result from natural causes or accidental means? Did the driver suffer the heart attack before or immediately following the accident? These decisions have important consequences to parties in arbitration and litigation.

Potential contributions to public health should not be overlooked. What are the cumulative effects of exposure to the fumes and gases of urban living. The chemical additives permitted to our foodstuffs are currently deemed harmless in a given product but will it remain so with ever widening opportunities for increased consumption. The tremendous increase of sprays and insecticides in agriculture cannot help but leave some residuals which will be ultimately consumed. What is their effect? The answers may not be obtainable unless accurate long range data are available. Diagnosis of certain infections or potential epidemic diseases may require highly skilled medico-legal investigation but however suspicious the symptoms may be the physician

or health officer is powerless under our laws to autopsy the deceased unless consent of the next of kin can be obtained.

Conclusion

Death, however inevitable it may be, is rarely the topic of dinner table conversation. Since the subject is never one of popular interest most persons are content to assume some agency of government exercises the necessary controls. Only when personal problems develop do we hear the familiar cliche "there ought to be a law." That our laws in the entire field of death investigation are sorely in need of revision and modernization is not disputed by those who attempt to define their responsibilities by them. Piecemeal revisions are only likely to add to the confusion. Correlation of the needs for preservation of evidence, proper records, criminal deterrence and collection of specialized data for medical, legal and socio-economic study and analysis should be a paramount goal. Opportunity for such accomplishment is at hand. A legislative study commission was created by the last session of our legislature to study the coroners laws and to make recommendations[16] for modernization and improvement. It is hoped the problems and needs of the many professions and governmental agencies can be considered and correlated with any recodification of the coroners responsibilities. So now more than ever, we are called upon to speak or forever hold our peace.

REFERENCES

1. Medical Certification of Medico-legal Cases: *U. S. Dept. Health, Education and Welfare, Public Health Service.*
2. Mortality tabulations: *Indiana State Board of Health.*
3. *Burns' Ann. St.* 35-1904.
4. Ch. 157, § 1226, *Ind Acts 1949,* known as the Public Health Code.
5. 31 *Ind Law Journal* 296 (1956).
6. Art. 3, Ch. 157, *Acts 1949.*
7. Administrative Manual, Division of Vital Records, *Indiana State Board of Health.*
8. 171 *Ind* 674.
9. 168 *Ind* 539.
10. 98 *Ill App* 644.
11. 47 *SW 2d* 1004 (Ky) 1938.
12. 122 *Ky* 866, 90 *SW* 1049; 207 *NY* 2d 657 (Nov. 1960).
13. 233 *Mo* 251, 118 *SW 2d* 116.
14. *Burns' Ann. St.* 35-1904.
15. 31 *Ind Law Journal* 301.
16. Ch. 39, *Acts of 1961.* ◄

A Descriptive Study of Criminal Sexual Psychopaths at Madison State Hospital

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THE INDIANA STATE LEGISLATURE passed a bill on March 7, 1949, providing for the commitment of criminal sexual psychopaths, or C.S.P.'s, to state mental hospitals. Under its terms offenders must be over 16 years of age, normal in intelligence, sane, and not guilty of rape, murder or manslaughter in connection with their crimes. They may be discharged from the hospital only with permission of the court.

Since passage of the act, 26 male persons have been admitted to Madison State Hospital under its provisions. They came from the 25 predominantly rural southeastern counties served by the hospital. Twenty of the men were diagnosed as sexual psychopaths by the hospital staff. The remaining six were identified as psychotic, or mentally retarded or returned to the court as not being sexual psychopaths. No women have been admitted as C.S.P.'s, although females are sometimes guilty of the same behavior that a man would be arrested for. Indeed, females who exhibit sexual areas of their bodies are often paid for it, and may become burlesque queens.

The late Dr. Samuel W. Hamilton has said that certain lawbreakers must be segregated from open society. It is of academic interest whether they be placed in a prison or in a hospital. When judicial authorities place offenders in a hospital, they must be treated as sick people. In keeping with Dr. Hamilton's observations, the sex offenders who have been committed to Madison State Hospital have been treated as sick persons, and not merely as criminals.

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The purpose of this article is to give Indiana physicians and other interested citizens a better understanding of the C.S.P. and the problems associated with his rehabilitation. It is based on data compiled from the hospital records of the 20 C.S.P. patients aforementioned. This number of patients should not be thought of as fully representative of criminal sexual psychopaths, but it is large enough to show the emergence of certain dominant trends. These trends do not conflict with those described in the literature on sexual psychopaths.

Similarity of Background Observed

The 20 C.S.P.'s came, in the main, from small city or small town backgrounds. With the exception of one man who came from a middle-class foster home, all were from lower socio-economic class backgrounds. All were laborers or truck drivers.

Their ages on admission ranged from 17 to 60. The large majority were in their twenties (eight men) or forties (six men). Their heights varied from 5 feet, 6 inches, to 6 feet, 1 inch, the average being 5 feet, 9 inches. Weights went from 119 to 200 pounds, with a mean of 152.3 pounds. The predominant physique was aesthenic (13 men), with athletic (seven men) coming next. No C.S.P. patients had pyknic builds.

Ten came from homes which were broken by death of one or both parents, divorce or separation. Three more grew up in homes where strong conflict existed. Three were adjudged to be exceptionally nervous as children, and four to be unusually quiet when young.

The highest school grade completed ranged from the 4th to the 12th. The modal

grade reached was the 8th. Intelligence quotients were determined for 13 of the 20. These varied from a low of 57 to a high of 128. Seven of the 13 I.Q.'s were below 84, with the average of all falling at 91. The majority, therefore, were below normal in intelligence.

Though several of the 20 men were nominal church members, only one appeared to take his membership very seriously.

Fifteen of the men had been or were married. Eleven had children by these marriages.

Most wives supported their husbands after their offenses. A few blamed themselves for the trouble. In six cases, wives obtained divorces. The embarrassment and pain associated with publicity about the husband's offense figured directly in these cases. One man had been divorced before arrival at the hospital. It is clear that marriage does not, of itself, prevent abnormal sexual outlets.

Of the 15 men who were or had been married, 11 were not having satisfying sexual relations with their wives at the time of their offenses. This was due to the wife's pregnancy, her coldness, her resistance to engaging in perverted relations or to lack of potency on the part of the husband. Some men blamed their sex lapses on their lack of satisfaction in normal marital relations. In three cases where marital relations appeared to be fairly satisfactory, there was a history of exhibitionism going back to adolescence.

Eleven of the 20 C.S.P.'s were described as having schizoid personalities. Ten were called mild and nonaggressive, though five of these were considered to be aggressive beneath the outward passivity. Five were considered neurotic, and three were characterized as being overly dependent. More than one of these descriptive traits apply to some of the men.

Ages at which the first sex offense occurred ranged from 14 years to 60 years, with the average falling at 27.9 years. The first offense was committed in the teens in 5 cases, in the twenties in 5 cases, in the thirties in 5 cases, in the forties in 4 cases, and in the sixties in 1 case.

Young Girls Chief Objects of C.S.P.'s

The objects of the sex offenses were 18 females, one ten-year-old boy, and in one case some stolen female undergarments. The female objects were 17 girls ranging in age from 3 to 18, with an average age of 10.1 years. In one of the 17 cases the offender also selected older women as his objects. In the 18th case the objects were exclusively grown women. The objects of the sex offenses were, therefore, largely young girls. In three cases these girls were the daughters of the offender and the relationship was an incestuous one. It is the author's opinion that only the strongly schizoid or near psychotic person will use children in his own family for his sexual gratification.

The modus operandi of the offense was most commonly exhibitionism, which occurred in 11 cases, or in 55% of the sample. It sometimes occurred singly and sometimes was accompanied by some other form of expression, the most common of these being masturbation and fondling. The second most common mode was fondling of sexual zones, which occurred in seven cases. Assault with intent to rape was charged in seven cases, but denied in three of them. There were three cases of voyeurism, two of fetishism, two of cunnilingus, and one of fellatio demanded by the offender.

Exhibitionists Less Violent

As a sub-class, the 11 exhibitionists are of especial interest. Their average for the highest school grade reached was 9.5, and their average I.Q. was 105. This contrasts with an average school grade reached by the non-exhibitionists of 6.7, and an average I.Q. of 81. Only two of the 11 exhibitionists were charged with rape or attempted rape, while five of the nine non-exhibitionists were so charged. The exhibitionists, therefore, are both more intelligent and less violent as to type of offense than the rest of the sample.

Half of the sample reported insight into the wrongness of their acts. The remainder

either denied the accusation, were evasive or defensive. Some reported they knew what they were doing was wrong but couldn't control themselves. Seven reported they got "nervous" and experienced an irresistible urge to express themselves sexually. As one man put it: "It was some power over me." Once the urge was yielded to and indulged, a sense of relief occurred. Five reported subsequent feelings of remorse.

Alcohol was reported to be used excessively by eight of the men. Three of the offenses occurred while the offender was intoxicated.

Hospital Behavior and Results

The course of the 20 C.S.P.'s in the hospital was almost uniformly good. They gave little trouble on the wards, cooperated well, and proved to be good workers at hospital jobs assigned to them.

Their treatment included milieu and activity therapies, with some psychotherapy. It is believed that their overall improvement stemmed largely from a process of growing up, and a dawning recognition that they could not continue their deviant patterns of sex expression and live in a free community.

Sixteen of the 20 are now out of the hospital. The shortest period from admission to recommendation for parole was four months, and the longest was three years and one month. The modal stay before recommendation for parole was six months. Of the four patients still in the hospital, one is a readmission after discharge, one is a returnee from parole, one has been in the hospital for only six months, and one is a 60-year-old man with a secondary diagnosis of mental deficiency who will probably remain as a chronic patient.

Only two of the 18 men released by the staff on parole can be considered treatment failures at this point. Sixteen, or 89%, have been successful in remaining out of the hospital. At Outpatient Clinics they have uniformly reported that they do not experience irresistible sexual urges the way they did before hospitalization. This is corroborated by their relatives.

A period of treatment in a mental hospital is therefore concluded to be an efficient and successful way to deal with criminal sexual psychopaths.

In most cases the reception of the parolled patient by family or friends has been fair to good, though their wives sometimes divorce them. Considerable difficulty was experienced by some in getting a job. In a few cases the offender moved to a new location because of the stigma involved.

Ten of the sample have now been discharged. The shortest time from offense to discharge was one year and two months; the longest was four years and four months. Much of the delay between parole and discharge has been due to the fact that the patient must bring action in court to obtain discharge. For one reason or another, several either put off or have difficulty in doing this.

Two of the men in the sample are brothers, separated in age by seven years. The younger knew his brother had been hospitalized for a sex offense but claimed he had never inquired into the nature of it. Both men were guilty of exhibitionism and reported impulses to grab girls. One was also accused of voyeurism. The older brother was 23 and the younger 21 at the time of their offenses.

Typical C.P.S. Patient

The typical criminal sexual psychopath which emerges from the sample of 20 studied is as follows: He is a young or middle-aged male of average height, with aesthenic or athletic body build. He came from a broken home or one full of conflict. He was quiet and shy as a child and grew up to be schizoid or mild-mannered as an adult. People identify with him rather readily and he tends to bring out motherly or protective feelings in adult women. He drinks more alcohol than he should. He is not religious. His intelligence is below the normal range and he has no more than a common school education. He comes from the lower socio-economic class and does common labor for a living. He is married, but has less than adequate sexual relations with his wife, which he tends to blame for

his perverted sex behavior. He chooses young girls as his sex objects and in response to an irresistible urge exposes his genitals to them, or fondles their sexual zones. He seldom has intercourse with them. He experiences sex relief after these episodes. He usually recognizes that his actions are wrong and is sometimes remorseful, but more frequently evasive and defensive. Upon conviction and a stay of six months or more at the hospital, he returns to the community reporting that his sex impulses are under control. After an initial period of difficulty he makes a successful readjustment in the community.

Conclusion

In a sample of 20 criminal sexual psychopaths treated at Madison State Hospital, 18 were released as improved or recovered. Of these, 89% have remained out of the hospital and have reported successful control of their sex urges subsequent to treatment. Hospitalization for periods of six months or longer is, therefore, considered to be a successful form of treatment for C.S.P. offenders.

Addendum

By way of contrast, it is interesting to compare the 20 C.S.P.'s with a sample of 13 male sex offenders parolled from prison. The 13 were interviewed at Madison State Hospital by direction of the Commissioner of Mental Health on an order from the Governor.

Three of the 13 were Negroid, while no Negroes appeared in the hospital sample of 20. The two samples were quite similar in physique. Approximately two-thirds in both samples were aesthenic in build. The pyknic build is conspicuous for its absence in both samples.

Marital, social class, school, and religious records of the two groups show no marked differences. But the prison sample was younger than the hospital sample on the average at the time of offense. Nine of the 13 parolees were in their teens or twenties when their offenses were committed.

Much more violence figured in the offenses of the prison sample. Ten were for assault and battery with intent to rape, one was for incest, and the remaining two were for exhibitionism. The sex objects of the prison offenders were more frequently adult women, with five such being victimized. Only two adult women figured in the hospital cases.

The average length of stay in prison was 3.9 years, as contrasted with a hospital stay averaging 1.04 years. Success was good with both modes of treatment at the time this investigation was made. ◄

The Arduous Evolution of Human Blood Transfusion

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Columbus, Ohio

A VENIPUNCTURE is performed by an intern and a few cc. of blood is sent to the laboratory. A brief analysis by a technician follows and a bottle of lifesaving blood is rushed to the patient. Countless lives have been saved by this simple procedure which took man over 2000 years to develop. Following is a review of those arduous years which led to the development of the first blood bank in the United States—Cook County Hospital, Chicago, 1936—and to the present simplified, safe technic of blood transfusion.

Age of Philosophy

Since the beginning of history man has attributed many spiritual and medicinal properties to blood. In 300 B.C. Egyptian princes reportedly bathed in blood to restore their youth and strength. In 100 B.C. Syrians and Hebrews used it as a medication for various illnesses. The ancient Greeks also realized the value of blood. Odysseus, the hero of Homer's Odyssey, was reported to have been revived after death by drinking fresh lamb's blood.

Aristotle believed that blood was the source of the body's strength. He stated that blood was manufactured in the heart and diffused throughout the entire body where it was consumed as a source of energy. In Rome it was common for spectators to rush from their arena seats to drink the blood of slain gladiators; they felt that it would give them the strength of the gladiator.

In 200 A.D. Galen advocated blood as a cure for epilepsy; this idea persisted for centuries. Throughout the Renaissance period, blood was held in much less esteem. In fact, Michael Servetius, the Spanish martyr, was executed by the Calvinists in Geneva in 1533, for proposing that blood was the "vehicle of the soul." The Calvinists considered him to be a heretic.

During all these centuries no scientific experiments were made with blood. Blood was considered to be one of the four humors which formed the body—the others being atrobilis, phlegm and yellow bile.

Age of Experimentation

In 1492 man entered rather abruptly into the age of experimentation—oddly enough the subject was human. Pope Innocent VIII had suffered a stroke and lay comatose; all attempts to revive him had failed. A Jewish physician in the Vatican proposed that the Pope be transfused with the blood of a young healthy boy to restore his youth and strength. Subsequently, three youths were taken to the Pope's bedside and their blood was administered to him. The route and method of administration are not known. All three youths died as a result of the experiment and the Pope continued in his comatose state. Shortly thereafter the Pope also died, and the physician fled in fear of his life.

In the year 1500, two Italian physicians, Cardanus and Peglius, wrote papers advocating transfusion as a general stimulant to the body. They made no practical application of their theory. For over 100 years little more was written about the use of blood in the practice of medicine.

In 1616, William Harvey discovered and described the mechanism of blood circulation. Though his theories were considered quite radical at first, they gradually gained

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acceptance and provided the much needed anatomical and physiological basis for further experimentation. In 1654, Folli described a technic which he used to transfuse a human with sheep's blood. He used two bone cannulas with an animal vessel between them. He inserted one cannula into the artery of a sheep and the second cannula into the vein of a human. No note is made of the success or failure of the experiment.

Success and Failure, then Prohibition

In 1656, Christopher Wren, who later was knighted for his experiment, and his assistant, Robert Boyle, performed venipunctures in dogs, using quills. During their experiments at Oxford, Wren and Boyle injected various drugs and performed transfusion between dogs by means of their quills. During the following ten years, many experiments were reported throughout Europe in which both animals and humans were transfused. The experiment which gained the greatest fame was in 1667, when Jean Baptiste Denis transfused blood from the carotid artery of a lamb to a young man who was reported to have been dying from repeated venisections. The patient made a startling recovery. News of this experiment spread rapidly throughout Europe and during the subsequent ten years many reports of dramatic cures could be found. However, the less well publicized failures were also numerous. In 1678, eleven years after his famous experiment, Denis was charged with the murder of a patient he had transfused. After a lengthy court trial, Denis barely escaped with his life. Thereafter the art of transfusion fell in disrepute. The French Parliament prohibited it, and the British Royal Society and the Roman Magistrates followed suit. Finally the Pope issued an edict prohibiting transfusions in all of Europe. For nearly 150 years there was no written report of transfusion experiments.

Age of Application

In 1824, James Blundell published his treatise on "Physiological Observations and Experiments." It marked the greatest advancement in the use of blood since William Harvey's experiments over two centuries earlier. Blundell stated: (1) Death could be prevented by transfusion with blood of the same species. (2) Blood from an animal of another species was unsuitable for transfusion. (3) Human blood was necessary for human transfusion. (4) Blood could be passed through a syringe without losing its lifegiving properties. (5) Venous blood was as satisfactory as arterial blood for transfusion. Blundell developed many instruments for his transfusion experiments including a three-way valve and syringe which later gained great popularity. He is given credit for the first successful transfusion of a human with human blood.

In 1821 Prevost and Dumas used caustic soda to defibrinate blood. This is the first report of the use of anticoagulants and was the first step toward conquering a major problem in blood transfusion. The next major advance was made in 1852 when the hypodermic needle was perfected. No single author was given credit for this invention. During the American Civil War there are reports of two transfusions. Both were soldiers who had suffered major injuries with hemorrhage. In the first case the patient was transfused with two ounces of blood and made an excellent recovery. The second patient was transfused with 16 ounces of blood and expired several days later.

In 1869, Creite reported that human red blood cells clumped when placed in animal sera. Landois of Leipsic discovered in 1870 that human red blood cells often hemolyzed when placed in animal sera. On the basis of this experiment, he explained the frequent occurrence of hemoglobinuria after transfusions.

In 1872 Leisrink of Hamburg wrote a text on the history of blood transfusion. During the next 30 years a great number of authors published work on hemolysins and agglutinins and on the coagulation properties of blood. During this period blood transfusion was used frequently and often with irrational indications.

By the turn of the century three facts had been firmly established: First, only

human blood could be transfused into humans. Second, to prevent coagulation, blood had to remain in contact with intact blood vessels or in tubes lined with a smooth substance such as vaseline. Third, large quantities of blood rather than a few ounces were needed for beneficial results.

Blood Classified into Four Types

In 1900 Landsteiner published the results of his now famous experiments. He discovered that human blood contained iso-agglutinins which could agglutinate the red blood cells from other humans. On the basis of these iso-agglutinins, he separated human blood into three groups.

In 1901, Eisenburg showed that human serum would also hemolyze human red blood cells of alien groups. However, no hemolyzation would occur when red blood cells of the same blood group were added to the human serum. In 1902 De Castello and Sturle classified a fourth blood type. In 1907 Jansky published his classification of the four blood types. In 1910 Moss developed a second classification of the blood types and subsequently much confusion existed between these two classifications.

Eventually the international classification of A, B, AB, and O as recommended by Landsteiner was adopted. In 1908 Ottenburg developed a series of clinical steps to be used for the typing of blood prior to transfusion. This technic greatly decreased the number of transfusion reactions and provided the basis for our present technic of blood typing and cross-matching.

By this time blood typing was fairly well understood; however, the technical difficulties in transfusing blood from one person to another were quite great. Much equipment, an operating room, and the services of skilled surgeons were needed to perform even small blood transfusions. In 1907 Crile developed a cannula which he tied to the artery of the donor and to the vein of the recipient for direct blood transfusion. In 1912 Alexis Carrel of Lyon won the Nobel Prize for developing a technic in which he anastomosed the artery of the donor to the vein of the recipient.

Many modifications of these technics of Crile and Carrel soon followed, but all were difficult to perform. Also, they caused great inconvenience to both donor and recipient and required the sacrifice of vessels. They all had the additional drawback of providing no way of measuring the amount of blood being transfused. In 1913 Lindeman developed a technic of needles and syringes coated with paraffin which he used to draw out and transfuse a measured amount of blood. In 1914 Kimpton and Brown of Boston developed a series of needles, syringes, tubes and bottles all coated with paraffin; this technic was used later in World War I to transfuse British soldiers.

Sodium Citrate Used as Anticoagulant

Throughout this period blood clotting was a major problem. Various anticoagulants were tested. Provost and Dumas used caustic soda in 1821, Sir Benjamin Richardson used ammonia in 1856, and Braxton-Hicks used sodium phosphate in 1868. A leech extract, hirudin, was suggested by Landois in 1892. In 1913 Abel used hirudin as an anticoagulant in dogs. A year later Satterlee and Hooker used the same compound in human beings. However, since hirudin was toxic and the technic for its use was cumbersome, it never gained wide popularity.

In 1914 Hustin of Belgium reported his experiments using sodium citrate as an anticoagulant. The first transfusion of citrated blood was given by Agote of Buenos Aires in 1914. The following year several authors reported the use of sodium citrate as an anticoagulant. Sodium citrate is still in use today and no better anticoagulant has been discovered for use in preserving whole blood.

This discovery paved the way for preserving blood and using it for indirect transfusions for periods up to 21 days after donation, as practiced by our modern blood banks. In 1916 Rous and Turner published a detailed technic for preserving blood. Robertson used this same technic to establish the first blood bank which was used for British soldiers during World War I. After

the war, interest in blood transfusions waned.

In 1923 Florence Seibert discovered the presence of heat-stable bacterial products. She advocated careful sterile technics in collecting and administering blood, and in cooling it during storage. In Russia, Yudin established a blood bank of cadaver blood in 1933.

Blood Banks Become a Reality

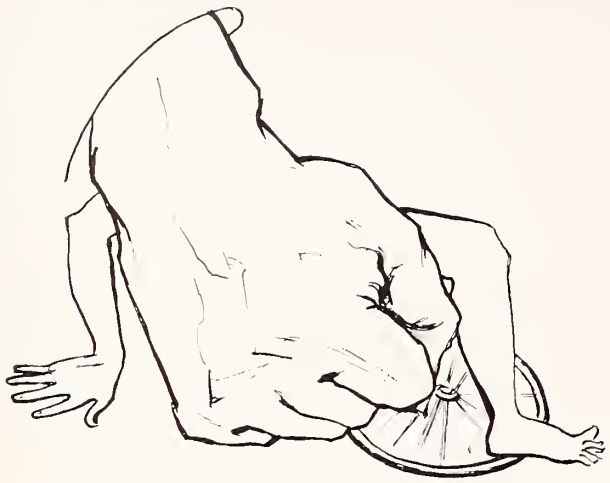
In 1936 Cook County Hospital in Chicago organized the first blood bank in the United States. The idea spread rapidly and blood banks began to crop up overnight throughout the country. In the same year John Elliott reported on the use of plasma for transfusion. It is quite interesting that until this time little mention had been made of the use or value of plasma.

The last major advancement in blood transfusion was made in 1940 by Landsteiner and Wiener who discovered the Rh antigen. A year later Levine demonstrated the relation of this antigen to erythroblastosis fetalis and isosensitization. By this time the technics of blood typing, storage and transfusion had reached the degree of development where widespread and massive transfusion was practical.

From 1941 to the present time advances have been less dramatic, but previous technics have been perfected. During World War II 13 million pints of blood were administered. For the first time blood was available to casualties in forward areas and could be administered in massive quantities —a fact made possible only by the perfected technics of typing, cooling, anticoagulation and administration. What was once a major surgical procedure fraught with danger had been reduced to amazing simplicity and routine. Today, approximately three million transfusions per year are administered in the United States. Current civilian needs for blood are 2.5 pints per 100 persons per year. The reaction rate is 3-5% and the mortality is only .03% —a record which has taken man over 2000 years to accomplish.

BIBLIOGRAPHY

1. Bernheim, B. M.: *Blood Transfusion, Hemorrhage and The Anemias,* J. B. Lippincott Co., 1917.
2. DeGowin, E. L.: *Blood Transfusion.* W. B. Saunders Co., 1949, pp. 1-5.
3. Ficarra, B. J.: The Evolution of Blood Transfusion. *Annals of Medical History,* Vol. IV, No. 4, pp. 302-323.
4. Gwynn, V. L., Reynolds, J. F.: The Use and Abuse of Blood Transfusions. *Surg. Clin. N. Am.,* Feb. 1958, pp. 19-30.
5. Hall, D. F.: Use and Abuse of Blood, *Northwest Medicine,* Sept. 1954.
6. Keynes, J. G.: *Blood Transfusion,* John Wright & Sons, Ltd., 1949, pp. 1-40.
7. Kilduffe, R. A., DeBakey, M.: *The Blood Bank and the Technique and Therapeutics of Transfusions.* C. V. Mosby Co., 1942, pp. 17-49.
8. Pirofsky, B.: The Use and Abuse of Blood Transfusions and Blood Derivatives, *G. P.,* Sept. 1960. ◄



The Case of the Tripped Tricycle

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ACTUALLY, MAZY MUCK'S tale is not unusual; yet certain features do attract attention. Her admission diagnosis was obvious at almost first glance: she was writhing with the typical tonic convulsive spasms of tetanus. The source of the infection also was no mystery: the entire body was scarred by the numerous needle jabs that are the masochistic trademark of the heroin addict. Two of the injection sites were festering. Although textbooks decry the reliability of examining direct smears, in this instance we did recover the drumsticks of clostridia tetani on our very first try.

We obtained the history of illness starting two days previously; first, there had been stiffness of her jaw muscles which then had spread to the muscles of the entire neck. Just about an hour prior to her admission, she had had her first convulsion; we were seeing the continuation. The pulse was only 84, respirations were 20, temperature was just 99°F orally and blood pressure was 150/70. The patient was sweating profusely; her head was in partial opisthotonus; definite risus sardonicus was present. The sensorium was clear; there was salivary drooling. The eyes were recorded as being normal; so were the heart and lungs. No abnormal neurological reflexes were elicited. As already stated, the skin was scarred all over and there were the two festering abscesses on the back just below her right shoulder blade.

Preliminary blood count showed the leukocytosis of 13,000 with a shift to the left; spinal puncture was unrevealing. Treatment was started with 250,000 units of tetanus antitoxin given intravenously in 5% glucose solution. Succinyl choline was placed in a separate syringe and the entire 50 mgs. were used cautiously by addition through the tubing from time to time in order to control the spasms. Ten million units of penicillin were also given stat. and then followed by 1.2 million units every six hours. In addition, 6 cc. of paraldehyde were injected subcutaneously, the dose being repeated every four hours as needed. We did not use the barbiturates but did inject 20,000 additional units of tetanus antitoxin every four hours around the clock. The patient continued very critically ill with a fever spiking to 103°, rales in both lungs and recurrent spasms that required continuous oxygen inhalation.

When the cultures taken from the abscesses showed, in addition to the B. tetanus*, coagulase positive staphylococci, the lesions were subjected to crucial incisions; they were laid open and packed with Fura-

* Tetanus toxin has been crystallized. It has a molecular weight of only 67,000. Next to botulinus toxin, it is the most potent of all known poisons. Each milligram of Nitrogen within the compound corresponds to 75 million M.L.D. (minimum lethal doses) when tested against guinea pigs! The actual mode of action is still in dispute even if the peripheral stimulation theory seems most probable.

dantin and Kanamycin (to which they were shown to be sensitive). Two vein cut-downs were being used constantly and a tracheostomy set was kept at the bedside even if never utilized.

Marked Improvement . . . Pain from What?

Within two days of the specific therapy, the patient began to improve markedly; the trismus subsided and the temperature curve flattened out. The drug addiction had been broken, cold turkey, during the critical week of the illness.

So far, the matter had been fairly routine. We had cause for preening ourselves as the mortality in these severe cases is, at least, 50%; in my experience with emaciated narcotic derelicts, I had reason for my initially very pessimistic prognosis.

The morning that Mazy had been first allowed out of bed under her own power I happened to be touring the ward. She had gone to the washroom unaided and now was sitting on a stool, leaning over her bed, both elbows propped on the linens while her hands held her head. She was the very personification of taut, tensely restrained pain—from *what?*

Several decades of practice have made me aware of master malingerers; I think I can recognize the most artful dodges of addicts seeking gratification of their cravings. This woman had not seen me looking at her as I was peering through a one-way window. Mazy was in genuine pain—the real article and not just the withdrawal syndrome. Rather surprised, I strolled into the room and asked quietly, "Mazy, what gives?"

Genuinely startled, the woman laid her hands flat on the bed and looked up at me. It was also my first close survey of her when I did not have such things on my mind as coagulase positive staphylococci, clostridia tetani, dosages of serums and other such items. Mazy Muck did *not* fit the usual stereotype of the drug taking, pimp exploited cocotte. Many thousands of these unfortunate poules roam the most fashionable centers as well as the purlieus of our cities; surely, New York has more than its share. The prostitutes form a frail sisterhood easily recognizable either on the street or in the clinic.

Addiction Medical not Criminal Problem

It is my firm conviction that narcotic addiction is a medical problem; these addicts are patients, i.e., they are ill. The Narcotics Bureau is in charge of Mr. Anslinger whom I have never met personally although I have seen him on the TV screen. I am sure that he is an incorruptible, earnestly dedicated official doing his very considerable best. I am just as sure that the Lucky Lucianos, the Mafiosa and the gambling and whoring underworld rests on a financial bedrock of the multiple billions mulcted annually from the hapless harlots who have to pay (in cash or in kind) some $100 *daily* for methyl-morphine (heroin) in order to obtain about one dollar's worth of a drug that should sell (legitimately) at no more than that were it obtainable on a prescription.

It is a reproach to the medical profession that it has acquiesced supinely to the numerous arbitrary bureaucratic "interpretations" of the perfectly desirable, seemingly harmless Harrison Act of 1914! Oh, yes! I pay yearly all of $1 for my narcotic permit; my narcotic number is on my prescription blank. *Technically*, I am free to prescribe narcotics as my medical judgment dictates; *practically?* Well! Practically, I treat the narcotic addicts in the clinic only. Every doctor has the answer to this state of affairs! Maybe, some day, the N.Y. and California delegations may be able to prod the American Medical Association into taking a firm stand on the topic. Collectively, the medical profession could redress the balance; someday—maybe—we could imitate our British brethren in their approach to the narcotic problem. Then we would cut the ground from under the rampaging criminal syndicates; at the same time, we could begin to give real succor to the neglected addicts; who will be the Philippe Pinel of the addicted?

Addiction the Price of Pain Relief

Enough of this diversionary, digressive diatribe! What I wanted to say was that Mazy Muck was *not* the stereotype of the

usual "main-lining" fille de joie. She was a rather tall, gauntly emaciated quadroon looking twice her stated age of 22. Her eyes were large and luminous brown; pain-wracked though she was but intelligence still shone in back of them. The nose was rather long and thin, slightly flaring at the nostrils. The lips had a hint of sensuousness and parted over large, white teeth. The skin was a lustrous olive, the ears well shaped and small. The dark brown hair was wavy but the tresses were long and had just been washed clean. The arms and shoulders were disfigured by the already mentioned scars and she still had the dressings over the two healing, recently incised lesions that had been the cause of her hospital admission. Instead of the usual nondescript hospital clothing, she wore her own nightgown: a pleasantly plain, clean and modest garment. The fingers of her hands had been scrubbed well; she was devoid of all make-up.

In Constant Pain

Replying to my question, Mazy pointed to her upper abdomen; pressing her finger in the notch just below her chest, exactly in the mid-line, she said, in a dull whisper, "I've had this awful pain, day and night, for years and years! That is what started me on all this!" She waved eloquently around at the adjoining beds in the corner of the ward occupied by other addicts on treatment.

Rather surprised, I asked her to stretch out supine on her bed. My resident stood on the other side while I laid my hand on the sternum and went lightly downwards. The veriest tyro could have felt the totally dislocated xiphoid, its tapering tip pointing inwards at an angle of some 90°! As my palpating finger probed, she winced and almost moaned, "That is it; right there!"

The region in question has a lot of structures: stomach, pancreas, the abdominal aorta with its upper main branches, also the various nerve plexi, the celiac among them. Popularly, of course, this latter is known as the solar plexus, so dear to every boxing commentator.

"Haven't you ever told a doctor about this?"

"Well, yes! But they have examined me always lower down and then order x-rays, blood tests—tests and more tests—all kinds of other things, too. However, this is the first time anyone took the time to examine me this way!"

Shotgun Wedding

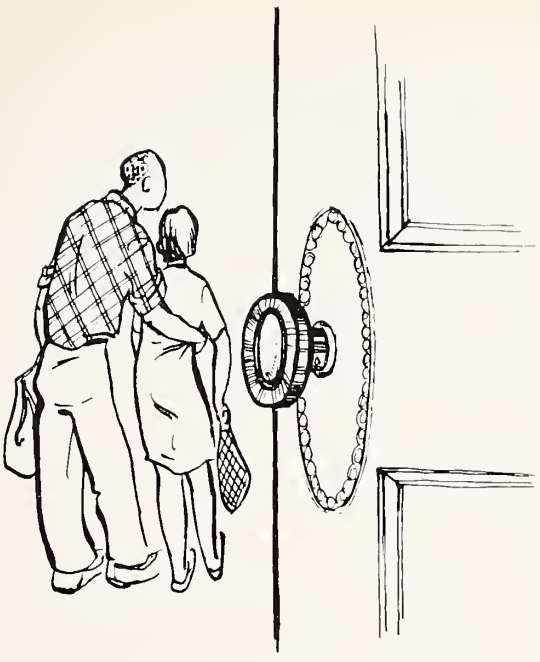
She had been in several clinics and hospitals before; from her chart, I knew that many, indeed, were the "work-ups" she had undergone. My curiosity was aroused; also, there seemed to be the makings of a good teaching case; the resident and I took the time to dig into her past — it was illuminating.

She was a rather good student in school; she had many siblings; the parents were very harsh with their children; the family belonged to one of those obscure splinter sects that indulged in extreme pietistic observances and incredible, semi-orgiastic rituals. At the age of 15, Mazy had been taken to yet another one of these revival meetings evoking extraordinary emotional pyrotechnics. She had become physically ill before the conclusion of the activities; the son of a neighbor was told to take her home while both families stayed at the gathering. One thing led to another; the two youngsters were home all alone until very late indeed.

Mazy Muck conceived; within three months both families became aware of the fact. Neither set of parents realized their own dereliction in having been permissively culpable. The two teenagers were brutally beaten up, coerced into a wedding ceremony and tossed out on their own. The boy found a menial job; Mazy had a hard delivery in a city hospital; they scraped along with aid from the Welfare Department of the city.

The child grew in spite of all handicaps; they had little to give the baby; at a neighborhood house Xmas party, they obtained as their gift someone's discarded baby tricycle. Their toddler played with it; it was his sole toy.

Mazy's husband started hitting the "vino"; frequently, he would arrive home drunk. He deteriorated progressively and



. . . tossed out on their own

became quarrelsome and belligerent; at times, he would beat her up. One night, he was particularly unsteady and stumbled over the child; he cursed at Mazy and swung at her so hard that she was flung flat. She only remembers striking the pit of her stomach against the handlebars of her baby's only treasure. The *tripped tricycle* must have delivered a solar plexus knock-out punch; her next memory was awaking in the ward of the nearby hospital.

Clinic to Clinic . . . Relief at Last

Because of the "terrible pains" wracking her midriff, she had "a lot of pictures taken; a lot of doctors looked me over; they took pictures of my stomach, gallbladder and kidneys . . . bones and just about everything". After a few days, Mazy was told that "everything is all right; just get over being hysterical and the pain will go away." The pain did not go away; she went to this clinic and to that; the pain persisted and became an unrelieved nightmare. Her husband abandoned her; she was on relief altogether.

Then she met a young man whom she had often seen lounging around the candy store across the street from the grammar school she had attended. He was a "pusher" for marijuana, cocaine and heroin; of course, pimping was the sideline that gave financial reason for his activities. This debaucher *did* furnish her the relief from pain that no one else had been able to do.

It was a dreary tale, often heard and uninterestingly repetitious. Of course, Mazy was "hooked"; soon, she was compelled to "entertain" the obliging whoremaster and his numerous "friends". She did refuse absolutely to bring the men to her little flat where she lived with her tiny son. The procurer made the concession of having the parties at other apartments. Mazy Muck had been attending the outpatient department of our hospital with her growing child. She had complained repeatedly to the doctors there about her own agonizing pains; no one paid any attention to her; the tag of HY, (hysteria) led to the usual shrugging brush-off. Her record was looked up several times and she was told that she "was all right; all the tests check out OK". Only the medicine furnished by the vieux marcheur would alleviate for a few hours the torment lancinating her.

My newly arrived English resident and I had elicited the essence of the above in not too many minutes; the story had been bottled up these many years and it took but little effort to have it come tumbling forth. With compassionate curiosity, I asked, "Didn't *anybody* actually examine you?" Well, they had done repeated pelvics and they had poked around her abdomen time and again for gallbladder, peptic ulcer, appendiceal and other sites of trouble—but never where I had felt the dislocated xiphoid! It seemed incredible.

Mazy had been "main-lining" for the past year. About a week before this last hospital admission, she and a couple other girls had been participants at an especially unholy shindig. She was kept drunk and drugged most of the time. Skipping the details—here she was.

As I stated earlier, Mazy Muck's tale is repetitious but certain aspects of it do seem to merit attention. It makes for good teaching rounds if only to call—yet again—for watchfulness by students and residents. It is instructive to remember that labora-



The story had been bottled up . . . many years

tory facilities are *not* a substitute for simple but intelligent observation. As Kellogg Speed used to tell his classes, "There is no substitute for your hands, your eyes and the presumed brains in back of them".

My medical resident was instructed by me to call the surgical cohorts so that the offending xiphoid could be snipped out; its jagged tip had been sawing at Mazy's innards long enough. Then, somewhat smugly, I quoted to him a tag of almost forgotten Latin; it seemed appropriate for the occasion, "Ab medico indocto, libera nos, Domine!" Somewhat surprised, my young, English confrere looked up at me, "That is a good bit of Latin, by Jove, sir! We had to memorize the whole thing in senior form—you mind—?" And he recited splendidly:

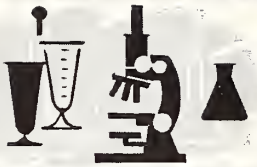
"A cibo biscoto,	From twice cooked food,
a medico indocto,	from an ignorant doctor,
ab inimico recon-	from a reconciled
ciliato,	enemy,
a mala muliere,	from a wicked woman,
ab omni malo,	from all these evils,
Libera nos, Domine!"	Deliver us, oh Lord!

The beautiful lilt of the Cambridge classical tripos scholar's Latinity made the ancient words come to life. Involuntarily, I said, "Amen."

It had been a most pleasant half hour interlude; now it was time to go and examine that puzzling case of small bowel disease: could a malignancy be lurking there? ◄

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An Outline of Pancreatic Function Tests

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THE DIAGNOSIS of pancreatic disease often presents difficulties, particularly that of the more chronic conditions and one has often to depend on laboratory tests. In spite of the fact that many laboratory procedures are not entirely specific they may provide valuable information, if properly interpreted.

The functions of the pancreas and accordingly the tests measuring them can be divided into two groups:

A. Tests for exocrine function.

B. Tests for endocrine function.

Tests for detection of the "fibrocystic disease of the pancreas" will be omitted since the disease now designated as mucoviscidosis is a systemic inherited dysfunction of the exocrine glands and the "sweat test", the cornerstone of diagnosis, is not dependent on pancreatic function.

Exocrine Function Tests

I. *Determination of the enzyme levels secreted by the pancreas.*

A considerable number of pancreatic enzymes have been identified but at present the measurement of only three enzymes in serum has a definite clinical value. These enzymes are amylase, lipase and trypsin.

A. Amylase:

Important in the diagnosis of acute pancreatitis. The test is to be done as early as possible as increased enzyme levels persist only a few days. An occasional increase in serum amylase may be found in the following conditions:

1. Acute diseases of the salivary glands—mumps, parotitis.
2. Diseases of the biliary tract, especially common duct stone.
3. High intestinal obstruction.
4. Perforated duodenal ulcers.
5. Penetrating peptic ulcers.
6. Following injection of analgesics, such as morphine, codeine.
7. Renal insufficiency.

Serum amylase values obtained in these conditions are, however, usually not high. Hyperamylasemia is diagnostic of acute pancreatic disease only when a really high value is found.

Normal Values: 40-110 Somogyi units.

B. Lipase

In the diagnosis of acute pancreatic disease, serum lipase elevations have the same significance as serum amylase. An advantage of serum lipase determination is the fact that elevated levels may persist for 10-14 days in acute pancreatitis and may be elevated in chronic pancreatic disease. In mumps serum lipase is normal but amylase may be elevated.

Normal Values: Up to 1.5 Cherry-Crandall or Sigma-Tietz units per ml/serum.

C. Trypsin

Until recently trypsin levels have not been measured because of the antitryptic

activity of the blood and some technical difficulties. A simplified method has been introduced and reported to be a more sensitive index of pancreatic disease than serum amylase or lipase. Further confirmation of these findings is essential.

Normal values: 0-100 units

Leucine aminopeptidase

The determination of this enzyme for the diagnosis of carcinoma of pancreas has proven disappointing in many institutions and we cannot recommend the test at the present time.

II. *Secretin and pancreozymin stimulation tests.*

These tests measure changes in pancreatic juice obtained by duodenal intubation, such as volume, bicarbonate concentration, enzyme levels, biliary pigment and cytology of duodenal aspirate. They are time consuming, require a rather elaborate set-up and have at present only limited clinical application.

III. *Alterations in digestive capacity.*

1. I^{131} Triolein Test

This promising test measures fat digestion and absorption with radioiodine labeled triolein and oleic acid. The poor utilization of fat may be due to incomplete digestion (lack of bile or fat-splitting enzymes of pancreatic secretion) or poor absorption (disturbances of intestinal mucosa). These states can be differentiated by means of radioactive oleic acid. The normal individual shows similar blood levels of radioactivity following the administration of either radioiodinated triolein or oleic acid. In pancreatic insufficiency, however, (pancreatitis, carcinoma of pancreas, mucoviscidosis, pancreatectomy), fatty acid absorption tends to be normal whereas neutral fat absorption is markedly depressed, a pattern not occurring in any other disorder.

Normal values:

Absorption of I^{131} triolein almost 100%
Plasma radioiodine level: over 8% at 6 hour period
marked impairment: less than 5%
mild to moderate impairment: 5-8%
Urinary excretion: 70% in 24 hours
Fecal excretion: less than 2% in 48 hours
marked impairment: 80-95%

2. Examination of feces

Gross examination, if combined with microscopic study may provide a useful screening test for detection of steatorrhea and pancreatic deficiency. Fat droplets, fatty acid crystals, and soaps are usually markedly increased in pancreatic deficiency. They can best be demonstrated by microscopic examination of a fecal smear stained with Sudan III or Sudan IV. In severe pancreatic insufficiency, this rough qualitative method provides information which correlates well with time consuming quantitative analyses of fecal fat.

Qualitative test for trypsin in feces by digestion of the gelatin layer of a dental x-ray film is a useful screening test in younger children and is consistently negative in fibrocystic disease of the pancreas (mucoviscidosis). Occasionally, gelatin film may be digested by proteolytic enzymes of bacterial origin (Pseudomonas, Proteus, Escherichia, a. o.) but their action is weak and can be usually differentiated by a special dilution technic. The value of this test in adults is minimal because of inactivation of trypsin during slow passage of stool.

Endocrine Function Tests

1. Hypoglycemic Hormone: Insulin

In spite of the major advances in our knowledge of the insulin chemistry and metabolism of Insulin-I^{131}, the in-vitro methods for the assay of insulin and the detection of hormonal insulin antagonists in diabetes mellitus are still too complex for routine clinical use.

Hypoglycemia is a frequent manifestation of tumors of the pancreatic islets. The oral glucose-tolerance curve is not always typical of organic hyperinsulism. A new method for enzymatic measurement of glucose in blood has been recently developed but its advantages over existing standard methods for routine clinical use remain to be shown.

2. Hyperglycemic Hormone: Glucagon

Glucagon is generally considered a pancreatic hormone with a wide variety of ac-

tions chief of which is the production of hyperglycemia through the breakdown of liver glycogen. A bio-assay method for estimating glucagon activity is available but a better understanding of the role of glucagon in clinical medicine is essential before it can be considered a useful functional test.

Summary

1. A brief outline of clinically useful and promising tests for detection of abnormal exocrine and endocrine functions of the pancreas has been presented.

2. Elevation of serum amylase is diagnostic of acute pancreatitis only if a significant high value is obtained.

3. Most of the tests are less reliable in chronic than in acute pancreatic disease because of the unusually large functional reserve of the pancreas. ◄

From The Journal Fifty Years Ago

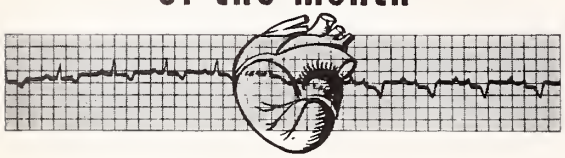
. . . Anesthesia should always be in the hands of one trained to its administration. Women make good anesthetists, with adequate training, and some of them do well to choose it as a profession.

Concerning general anesthesia, the choice in this country has come to center on ether because of its safety, although nitrous oxide has not come into such general use as it deserves. There are some factors which have militated against the more general use of the latter—it is more expensive; requires expensive apparatus and special skill for its use; it increases venous congestion, and it does not produce complete muscular relaxation. In the experience of Crile and Teter it has been used more than 20,000 times without a death. Its safety, therefore, coupled with the fact that it produces comparatively little shock and nausea, outweighs the undesirable features mentioned, and it should be used in properly selected cases.

Local anesthesia, by infiltration or nerve blocking, is also deserving of a wide application in this country. In Europe it is extensively used, not only in minor cases but in amputations, removal of tumors, herniotomy and in thyroidectomy. Bier's venous anesthesia is also useful in amputations and operations on extremities.

Simon J. Young, M.D., on "The Safety Elements in Modern Surgery". *JISMA* July, 1912.

Electrocardiogram of the month



Presented as a regular feature of The JOURNAL, Electrocardiogram of the Month is a series of short talks on cardiovascular diagnosis and treatment, edited by the staff of the Robert M. Moore Heart Clinic of the Marion County General Hospital, Indianapolis.

Atrioventricular (A-V) Nodal Rhythms Due to Digitalis Intoxication

*CHARLES FISCH, M.D.**
Indianapolis

RECENT OBSERVATIONS indicate that A-V nodal arrhythmias are a common manifestation of rather severe digitalis intoxication and in frequency seem to exceed atrial tachycardia with block. The so called nonparoxysmal nodal tachycardia is most frequently observed in atrial fibrillation (EKG of the Month, *JISMA*, October 1960), however it may occur in presence of sinus rhythm as the present case demonstrates.

Case Report

The patient, a 73-year-old man with emphysema and arteriosclerotic heart disease manifest by angina pectoris, was admitted to Robert Long Hospital on April 1, 1962 for the treatment of digitalis intoxication. Our remarks will be confined to the electrocardiographic manifestations of digitalis intoxication (Figure 1). The upper strip (all V-I) taken on 1-24-56 shows a sinus rhythm with a P-R of .22 seconds. On 2-26-62 the only change is the prolongation of P-R to .28 seconds. Tracing taken on 4-1-62, the day of admission, shows a sinus rate of 106 per minute (P-P interval .56 seconds) with the somewhat slower ventricular rate, the latter being 92 beats per minute (R-R interval .66 seconds). The different atrial and ventricular rates, lack of a constant P-R relationship and the faster atrial rate indicates A-V dissociation with A-V block.

The ventricular rate of 92, the identical appearance of the QRS during sinus rhythm (2-26-62) and during A-V dissociation places the ventricular pacemaker in the A-V node and less likely in the bundle of His. Digitalis was discontinued and repeat tracing on 4-4-62 shows a regular ventricular response at a rate of about 50 per minute without any P waves being present. This strip represents the ordinary form of A-V nodal rhythm.

In summary the tracing demonstrates (1) A-V dissociation due to block with nonparoxysmal A-V nodal tachycardia (4-1-62) and (2) A-V nodal rhythm (4-4-62) due to digitalis. ◄

* From the Robert M. Moore Heart Clinic, Marion County General Hospital and the Department of Medicine, Indiana University School of Medicine.

Supported by the Herman C. Krannert Fund of the Indiana Heart Association, Indiana State Board of Health, Indianapolis.

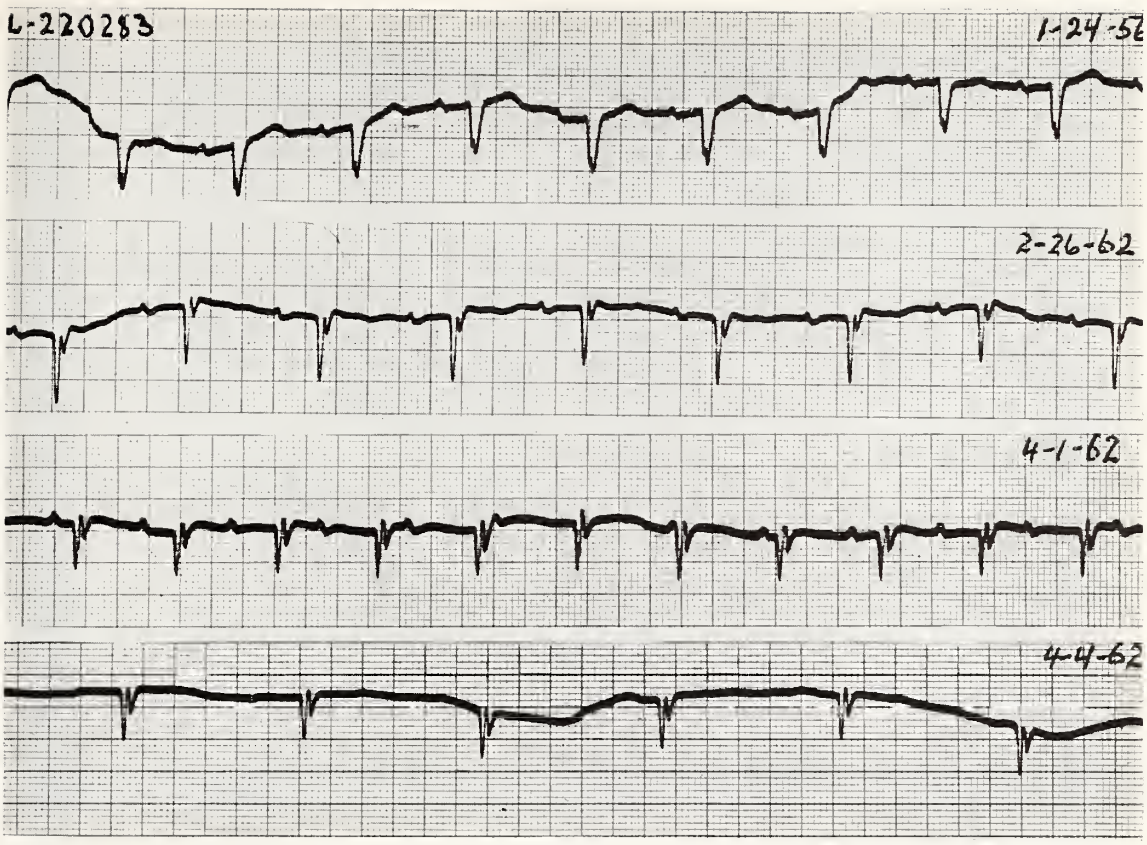


FIGURE 1

THIS FIGURE SHOWS sinus rhythm with first degree A-V block (1-24-56, 2-26-62), A-V dissociation due to block with A-V nodal tachycardia (4-1-62) and A-V nodal rhythm (4-4-62).

LABORATORY MEDICINE

Published periodically as a review of clinical laboratory procedures suitable for laboratories with minimal equipment.

Bilirubin In The Urine

A. WENDELL MUSSER, M.D.*

MOST OF THE CELLS of the body are constantly reaching the end of their life span and are being replaced by younger ones. Such is the fate of red cells. The hemoglobin is broken down in the reticuloendothelial system of the body. The globin becomes a part of the protein pool to be used again; iron becomes a reusable ferric iron; the pyrrole is split to eventually form bilirubin. Free bilirubin is released by the reticuloendothelial system to the blood stream. The free bilirubin is picked up by the liver and conjugated with uridine diphosphate glucuronic acid to form the water soluble mono- and di-glucuronides which are excreted into the bile. The bile then, of course, reaches the bacterial flora of the intestinal tract where the bilirubin is reduced to urobilinogen, which may in turn be oxidized to urobilin. Both these compounds are excreted in the feces. Small quantities of urobilinogen are absorbed from the gastrointestinal tract into the "so called" enterohepatic circulation to be excreted by the kidney or reabsorbed by the liver cell and re-excreted into the bile again. Bilirubin is not found in the urine under normal conditions.

Abnormalities of bilirubin metabolism may be the result of any of the following or a combination: (1) overproduction, or in other words hemolysis; (2) decreased ability of the liver cells to remove bilirubin; (3) inadequate conjugation of bilirubin by the liver cells; (4) inadequate excretion of conjugated bilirubin by the liver cells; (5) re-entry of conjugated bilirubin into the blood due to hepatocellular damage or biliary tract obstructions.

The first three situations result in a high blood level of free bilirubin which is insoluble in water and therefore cannot be excreted by the kidneys. This mechanism results in elevation of free bilirubin (indirect-reacting) in serum but no bilirubin in the urine. Many entities bring about hemolysis and therefore overproduction of bilirubin—hemolytic anemias, transfusion reactions, massive infarcts, massive extravasation of blood in tissue, and certain porphyrin metabolism abnormalities. As a result of increased blood level of free bili-

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rubin, more is excreted into the bile; therefore, an increased fecal urobilinogen and urobilin occur, often associated with an increase in urinary urobilinogen.

Intensive Study Needed

Recently many reports have appeared in the literature concerning hepatic dysfunction in which there is poor uptake of bilirubin by the liver cells (Gilberts' disease). There is a mild retention of free bilirubin and slight jaundice but the urine and fecal urobilinogen is normal. Much discussion and more detail study are necessary before our ideas and information can be clarified. No defect in the glucuronyl transferase is evident.

Recently much attention has been given to the inborn errors of metabolism, many of which are the result of enzyme deficiencies. Many types of non-hemolytic, acholuric jaundice are the result of a deficiency of glucuronyl transferase, similar to the physiologic deficiency of the newly born infant. These patients show almost complete absence of conjugated bilirubin in the bile, and little or no fecal and urine urobilinogen.

Blockade of excretion of conjugated bilirubin across the hepatic cell to the bile canaliculi has been postulated for such syndromes as Dubin-Johnson syndrome and familial, non-hemolytic jaundice. These two conditions are relatively rare. The block, mentioned above, is not complete; consequently, urobilinogen is formed and is reabsorbed into enterohepatic circulation.

In hepatocellular damage large quantities of free bilirubin accumulate in the plasma. Bilirubin is conjugated and reappears in the general circulation. Much discussion abounds to the etiology of this regurgitation—no definite ideas are prevalent at this time. Because of re-entry of conjugated bilirubin into the circulation, bile appears in the urine. Urobilinogen is formed and absorbed but the diseased liver does not adequately handle the urobilinogen and it is excreted by the kidneys. In obstructive jaundice little or no urobilinogen is excreted in the urine since very little or no bile is allowed to be excreted into the intestinal tract for the formation of urobilinogen and its subsequent absorption and urinary excretion.

Although the above discussion is quite brief, it is apparent that in many diseases the presence or absence of bilirubin in the urine is quite important. Although the tablet method is standard at this time, basic simple chemical tests are still the standard of reference. The modification of the Harrison's test is the standard chemical test.

Method

To 10 ml. of urine add 5 ml. of barium chloride, 10% solution. Mix well and filter. To the precipitate on the filter paper add 1-2 drops of Fouche's reagent. A greenish-blue color is positive for bilirubin. Patients on Thorazine treatment may give a false positive reaction for bilirubin with the Harrison's test.

Reagent:

(1) Ba Cl_2, 10% solution.

(2) Fouche's reagent.

Trichloracetic acid	25 gm.
Distilled water	100 ml.
10% Ferric chloride	10 ml.

This method may also be used with fecal suspensions.

REFERENCES

1. Billings, B. H., Lathe, G. H.: Bilirubin Metabolism in jaundice. *Am. J. of Med.* 24:111-121, 1958.
2. Lathe, G. H., Walker, M.: The synthesis of bilirubin glucuronide in animal and human liver. *Biochem. J.* 70:705-712, 1958.
3. Harrison, G. A.: *Chemical Methods in Clinical Medicine:* Their application and interpretation with the technique of the Simple tests, 2nd Ed., J. & A. Churchill, Ltd., London, 1937.
4. Snell, A. M.: Liver function tests and their interpretation. *Gastroent.* 34:675-682, 1958. ◄

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Smith, Kline and French Medical Student Fellowships

ALMOST IN THE same mail comes an announcement of the Smith, Kline and French awards to 33 medical students for clinical tours in foreign countries, and the report of an Indiana University senior student and his wife who have recently returned from a Smith, Kline and French fellowship tour in Nigeria.

This year will be the third year for the medical student clinical tours as sponsored by the pharmaceutical firm. The 33 students awarded fellowships recently brings the number of fellowships to a total of 92. This accounts for medical experience trips to 33 countries in the three years.

Arvel D. Tharp and his wife Mildred, of Indiana University School of Medicine, were selected this year for a traveling fellowship which will take them to India, for ten to 12 weeks of work in mission hospitals or outpost medical facilities.

Alan E. Beer and his wife, who is a nurse anesthetist, left the United States August 19, 1961 and spent three months at various hospitals in Nigeria. Situated in West Africa just above the equator, Nigeria is about the size of Texas and Arizona combined. It contains over 40 million people, 90% of whom are illiterate.

Their first station was the Sudan Interior Mission Eye Hospital at Kano, where they assisted Dr. M. Douglas Hursh, the hospital's founder. The hospital has 130 beds, but accommodates over 200 patients by utilizing the spaces between the beds. Since each patient's family must be in the vicinity to cook for him, the space under each bed is usually occupied by children. In 1961 over 6,000 major operations were performed and nearly 90,000 patients were treated. Dr. Beer received a crash-program type of education in diseases and surgery of the eye, and did some cataract extractions with supervision. Mrs. Beer gave general anesthetics and taught African nurses anesthetic technic.

A week spent visiting medical facilities in Ibadan, the largest city, and Lagos, the capital city, took them through the medical school, the Institute of Public Health and Preventive Medicine, child welfare and maternal welfare clinics, the Lagos General and Lagos Maternity Hospitals.

A surface trip of 180 miles over bumpy roads took Dr. and Mrs. Beer to Egbe where they worked in a 70-bed hospital. This was a general hospital with all the standard diseases of temperate and also tropical climates mixed together in great profusion and most of them arriving in the last stages of complications. Part of the duty here consisted of trips to outlying clinics for the diagnosis and treatment of leprosy, of which there are about 150,000 cases in the country, with 5,000 newly diagnosed cases each year.

A detailed account of Dr. and Mrs. Beer's three-month experience will appear soon in *The New Physician.*

Aerospace Medicine A Topic At ISMA Convention

AEROSPACE MEDICINE will be one of the featured subjects at the annual convention this year in French Lick. Tuesday morning, starting at 9 a. m., will be devoted to the newest developments in the newest realm of medicine under the guidance of Dr. John Hickam and Dr. Stuart Bondurant of Indianapolis. General Charles Roadman, Medical Director of the Manned Space Flight Division of NASA will be one of the participants. Other distinguished personages from the nation's capitol are to be invited.

The scientific program also includes a panel discussion on "Exertion—Exposure—Compensation and Re-employment" at 8 p. m. on Monday. Attorneys Ben Small and James Donadio, and Drs. Russell Henry and Robert Chevalier are the panelists.

Tuesday afternoon is set up for a panel discussion on "Pathological Conditions of the Upper Gastrointestinal Tract," to be moderated by Dr. Stanley Battersby. Following this there will be a program on "Care of the Injured" to be sponsored by the American College of Surgeons.

On Wednesday morning at 10 o'clock a program on "Juvenile Delinquency" will feature Donal E. J. MacNamara, President of the N. Y. Institute of Criminology.

The schedule for entertainment and relaxation includes golf, skeet and trap events on Monday with a smoker and stag party Monday night. The President's Dinner will be held on Tuesday night, with Mr. MacNamara as speaker.

The preliminary meetings of the Executive Committee, Council, and House of Delegates will be held on Sunday prior to the meeting itself and the concluding sessions of these bodies will be on Wednesday afternoon. Section meetings will convene on Monday afternoon.

The dates are October 7 to 10. Now is the time to make hotel reservations.

Busy Days at the FDA

A RECENT REPORT from the Food and Drug Administration listed 124 voluntary actions to protect the public from unfit products. These included the voluntary destruction or conversion to animal feed of 80 tons of adulterated food, the withdrawal from the market of $235,341 worth of adulterated drugs and in 20 instances the voluntary improvement of factory facilities to the total cost of about $243,000.

At the same time, seizure actions removed from the market "egg noodles" made without eggs, canned "early June peas" processed from dried peas, and canned peaches in "heavy syrup" actually found to be very light in consistency.

Seven actions of seizure were directed in one month against food contaminated with illegal amounts of pesticides or mixed with improper additives. One of the foods involved was bulk wheat, a portion of which was "pink wheat"—seed wheat which had been treated with a mercury compound to prevent rotting when planted, but which renders it more than slightly unsuitable for human or animal consumption.

Seizure of an appetite control drug was accompanied by an explanation from the FDA that the claims made for the drug were sensational and impossible; sensational in claiming that pounds could be lost without restriction of food intake, and im-

possible so far as the claim that the patient could eat with gusto all his favorite foods and still lose weight at the rate of almost one pound per day. FDA also objected to claims in the same literature that fat people are more susceptible to cancer than others.

Court action was initiated against a large quantity of Geriatric Vitamin Capsules, good for treatment of "mental depression, common colds, degenerative, cardiovascular and rheumatic diseases, diabetes, loss of appetite and other conditions." FDA in this instance also, differed with the contention that the nutritional requirements of people over 40 was different from that of adults generally.

Nearly 15,000 bottles of counterfeit Vitalis was seized. The alleged counterfeiter had been recently fined and sentenced to a five-year prison term for counterfeiting money. His "Vitalis" labels were as phony as his homemade money.

Quackery was set back several years in the outlawing of Mercier's Radioactive Devices from commerce. Cancer, arthritis and diabetes were to be treated by withdrawing the patient's blood and exposing it to radiation in the "device" for 24 hours, and then reinjecting it. This was said to increase the quantum energy of the blood plasma and to normalize the blood chemistry.

Assorted FDA activities also included prosecution of "Bennie" peddlers, seizure of stock feeds nutritionally deficient and investigation of medicated feeds short on medication. Twelve seizures involved products improperly packaged or labeled.

And so it goes. A busy month at the FDA. One would think that an FDA inspector would end up in a dither and be afraid to eat away from home or take any medicine unless he made it himself. They may be skittish about hair tonic too.

FDA is said to be operating on a skimpy budget. If so, the public is getting its money's worth. This is a lot of action for one month's work in the protection of health.

Guest Editorials

What Can I Do?

THE NEED FOR physician participation in affairs of government through positive political action is finally recognized as being imperative if we are to preserve the free practice of medicine.

In order to analyze the reason for this necessity we need only review the history of our own behavior. It is an interesting fact that in the not too distant past a candidate for public office always sought support for his favorite philosophy from the physicians of the community. He knew that the doctor could be depended upon to express himself on various and sundry subjects to his daily patients. This was in the day when time was a relatively unimportant commodity, and when "doc" leaned back to put his feet on the old roll top desk you can bet that he was relying as much on his patient's beliefs as upon his presenting complaint.

In the scientific whirlwind in which we now find ourselves, a majority of us will argue that this intimate relationship has no place in modern medical practice. We will submit that an accurate history taken by an interne or resident is vastly superior to a discussion of unrelated subjects. We admit to this truth, but what we haven't realized is that the physician who removes himself from these penetrating interests of his patient is at one and the same time removing himself from that part of community responsibility in which his absence creates a vacuum leading to a total lack of political influence by our profession.

To whom does the physician speak today, because speak he must, when he wishes to vent his political venom? He, in fact, speaks only to himself, through colleague associations at the golf clubs, at cocktail parties and in the confines of his medical meetings.

It has been accurately estimated that we

as physicians interview 2,000,000 patients daily. If we were really interested in preserving our antisocialistic philosophy, think of the dramatic influence we could wield if each of us took only a couple of minutes each day to express our hidden viewpoint!

But we say, "No, I am too busy and time is the most important commodity I possess." If we can justify this position all well and good, but there is yet another positive action we can take from which there is no escape. Before we answer the question, "What Can I Do," let's admit that a majority of those whose educational background should guide the thinking of this great democracy have adopted an attitude of cynicism and apathy, directly proportionate to their increased standard of living. If this attitude is to prevail, we shall have no one to blame but ourselves when the war is lost.

Again, before we answer the question, "What Can I Do," we should place ourselves in one of the four prevalent categories of physicians: 1) those who believe that medicine should be socialized (and believe me, there are a fair number of these defectors); 2) those who feel that fighting socialistic trends is hopeless (and this number is not insignificant, either); 3) those poor souls who think the physician should avoid political activity; and 4) those who are doing everything in their power to prevent the destruction of free medical practice.

If, you belong to one of the first three classes, disregard the question, "What Can I Do," because you won't do it anyway. If, however, you are one who in good conscience would leave the practice of medicine as you found it, then discard your frustration, eliminate your impotence and join with those whose experience and conviction have determined the only course we must take—POLITICAL ACTIVITY. If your time is too valuable to part with, then at least part with your money. Join the Political Action Committee of your state medical group as well as AMPAC, the American Medical Political Action Committee.

Guy A. Owsley, M. D.
Hartford City, Ind.

Reprinted with permission from *Transactions of the American Society of Opthalmologic and Otolaryngologic Allergy*, Vol. 2, No. 1, 1962.

Fellowship for Freedom in Medicine
London, England

Physician, Heal Thyself . . .

WE ARE NOT ALARMIST by nature, nor given to making "sensational" pronouncements. It is with a due sense of responsibility, therefore, that we feel the time has come to sound a warning note. A warning to the whole medical profession, but most especially to general practitioners.

We are drifting in a sea of apathy or possibly despair. The unity of the profession is gradually and imperceptibly disintegrating and most of us are guilty of a diminished sense of responsibility to the profession as a whole.

Whether we be gynaecologists or general practitioners, psychiatrists or radiologists, holders of a conjoint diploma or Fellows of a Royal College, we are all doctors and members of the same respected profession. We must never forget this fact.

Unless the profession stands united, now, we shall undoubtedly see doctors in Britain decline beyond the point of no return into a miserable collection of petty functionaries. If we are to avoid this melancholy fate we must set our own house in order—and quickly.

Why do we consider the outlook so grave? Let us look briefly at the facts. From the start of the N.H.S. the profession has suffered from too many divisions. Indeed, the Health Service would never have been launched in its present form had

the profession managed to negotiate as one body instead of a series of selfish splinter groups.

This exhibition did not pass unnoticed by the Ministry of Health. Since 1948 it has always been delighted to take on one fraction of the profession at a time. Consultants are lukewarm over the problems of general practice and general practitioners are seldom moved by the troubles of their colleagues at consultant level. Neither group can be said to care particularly about the difficulties of whole-time medical officers and so it goes on. Since we are a house divided against itself it is hardly surprising that the Ministry wins on points almost every time.

Some will cry that this is an exaggeration. We submit that it is not; the facts unfortunately prove us right. No single real concession has been obtained from the Ministry during the last thirteen years. Yet innumerable requests, memoranda, deputations and verbal protests arrive at the doors of the Ministry.

The Danckwerts Award was a legal decision, not a Ministry concession. And that sortie into arbitration was a terrible mistake on the part of the Ministry which it has taken good care not to repeat. Since then the negotiating technique of the Ministry has been impressively simple and effective. Protests from the profession are always listened to most attentively. Where the matter is of little importance requests are granted with good grace and full publicity. When anything of moment is at stake the doctors are shown to be misguided and importunate and all the machinery of prevarication and delay is set in motion. More than a year has passed, for instance, since the government accepted the Pilkington Committee's Report; no review body has yet been chosen.

The results of this system have not been so severe on the hospitals since consultants can use other more subtle approaches through the Royal Colleges to achieve their purposes. But for the general practitioner in particular they have been catastrophic. Patronized by his hospital colleagues, traduced by the Ministry and the Press, overworked—it is little wonder his mood is one of apathy and despair.

The abolition of goodwill means he cannot buy or sell his practice and must stay just where he is—or emigrate. The intake of medical students is limited and so it is becoming increasingly difficult to find assistants or partners; the number of qualified doctors who emigrate is increasing—1,000 a year according to official figures. He is paid by a system well calculated to choke ambition and encourage buck-passing in all but the saintliest of us. Now ministerial memoranda are starting to tell him how often he must visit his patients. Private practice is being slowly stifled. *Facilis descensus Averni . . .*

What can be done? First of all, surely, we must learn from past mistakes. The greatest lesson of the last 15 years is that a united profession would never find itself in the position we are now struggling to escape. We **must** join together as one body and speak with one voice.

With this aim in view, can our existing machinery for negotiation be said to be adequate? Are we a force to be reckoned with? Or should we perhaps stop entering a team of amateurs to play a highly-trained professional side?

Secondly, are we not behaving like some of our neurotic patients who will blame circumstance, environment and other people for their trouble, but never themselves? The Ministry only gets the better of the profession because the profession allows it to do so. The press only gives us unfriendly publicity because our public relations system puts across a distorted picture of doctors and their problems.

How much research goes on to find what doctors are thinking and what they really want? The great mass of the profession is inarticulate. Our main representative organization is seen to resemble the Tower of Babel.

Can we hope for unity while we have so many representative bodies each chipping away at its speciality? Is there a case for a closed shop system and a single negotiating body for the profession as a whole, with no other body, however august, being granted official recognition?

We need your answers to these questions and to the many others which must arise. If possible, come to the A.G.M. and air your views. If you cannot do this, why not write to us? We are looking for hard, concrete, **workable** suggestions. The F.F.M. has a reputation for clear thinking and fearlessness. These qualities are needed now more than ever before.—Reprinted with permission from the *Fellowship for Freedom in Medicine,* Bulletin No. 48, 50 Hallam Street, London, October, 1961.

Editorial Notes . . .

The two anticancer agents obtained by Eli Lilly and Company from Periwinkle differ from each other by only a single chemical group attached to a nitrogen atom. Despite this slight chemical difference the two compounds are therapeutically different except for the fact that both exhibit anticancer effects. Tumors resistant to one of the two are sometimes responsive to the other. Also tumors that have grown resistant to one may be sensitive to the other. Vinblastine is available to physicians under the trademark name Velban. It is for the treatment of generalized Hodgkin's disease and choriocarcinoma resistant to other therapy. Vincristine is now in the early stages of clinical study.

Health Information Foundation is now affiliated with the University of Chicago and has moved its offices from New York City to the university campus. The fundamental purpose of the foundation—collecting, interpreting and distributing data related to the social and economic aspects of medical care to assist in improving the health of the American people — has not been changed. The move and the new affiliation will improve its functions and broaden its resources. Dr. Lowell Coggeshall, Vice President and Trustee of the University will serve on the six-man administrative council.

A "secret remedy" for arthritis reported upon in Look magazine recently has been announced by the Arthritis and Rheumatism Foundation to consist of well known active ingredients—a member of the cortisone family and a male and female hormone. Dr. Fred H. Priebe, chairman of the Medical and Scientific Committee of the Indiana Chapter of the Foundation, emphasized the potency of the drugs and pointed out that patients had already reported on the occurrence of side effects obtained from the "secret" potion.

Seventy percent of all employees now holding group health insurance policies issued during 1961 have the right to retain their protection when they retire. Each year for the past several years has seen a steadily growing percentage of insurance with such rights. The right is exercised by converting to an individual policy or by continuing on the group benefits.

Radiant energy may be used in two ways to enhance the keeping quality of sea foods. Radiopasteurization is achieved with a relatively small dosage which doubles or triples the length of time fish may be kept in edible condition on ice. Radiation around 10 times the pasteurization dose will absolutely sterilize the food, but will injure the flavor and texture. Research continues, but at present the radiopasteurization followed by storage in ice is producing the best product from a gourmet point of view, and the keeping qualities are much improved.

"Even modest elevation of blood pressure can have adverse effects on length of life." A recent study by the Society of Actuaries on the experience of 26 life insurance companies shows a constant association between above-average blood pressure and mortality rates. With relatively moderate

elevation the mortality was 50% or more above the standard risk. With marked elevation, the mortality was two to five times standard. Upward changes in mortality rate can be demonstrated for even slight degrees of hypertension. The report is contained in a pamphlet entitled "Blood Pressure: Insurance Experience and Its Implications," published by the Metropolitan Life Insurance Company and obtainable to doctors by writing to the company at 1 Madison Ave., New York, 10. ◄

About Our Cover

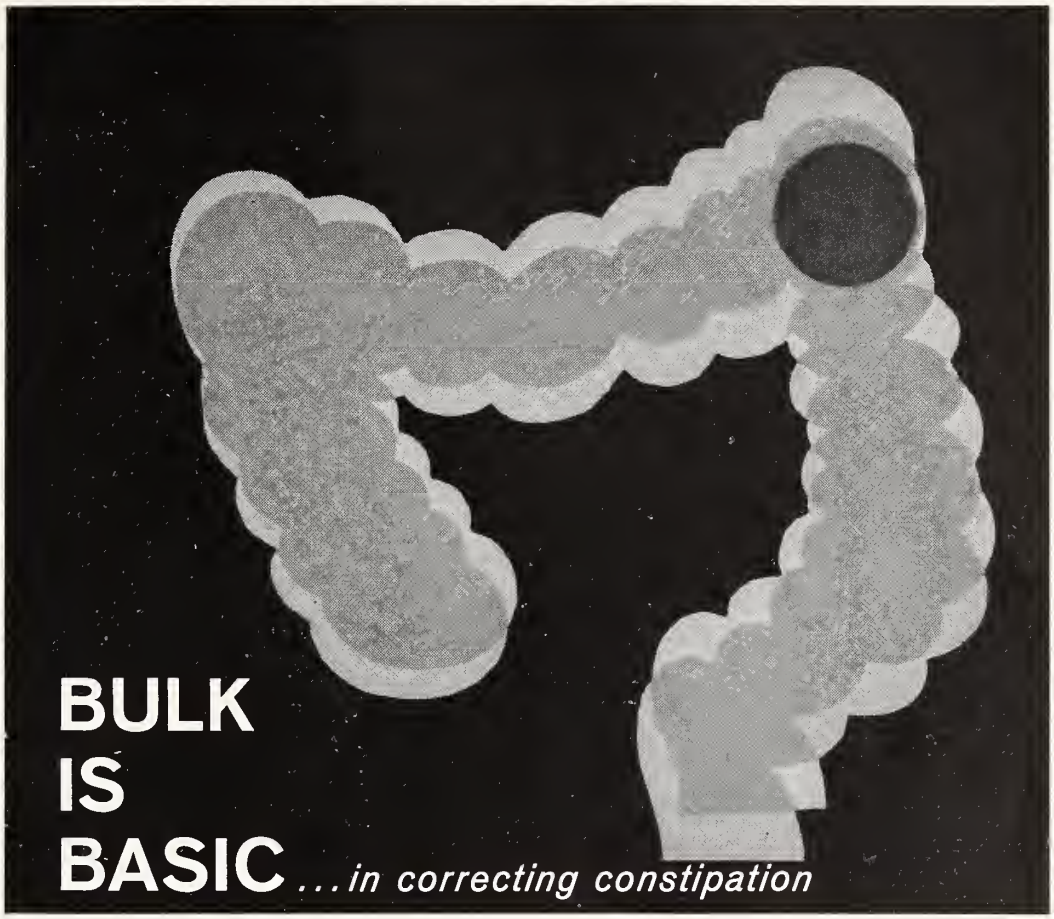
What a change has taken place at 3935 North Meridian Street in little more than a year will be apparent by comparing the small picture on this page with the cover of this month's *Journal*.

The new home of the Indiana State Medical Association is finally a reality. A monument to medicine, and to all those who have worked so hard and so long to make this building possible, and a heritage for all practitioners of medicine in the future.



When the move took place in May the building was partially completed, but still surrounded with bare earth . . . or after a shower, instant mud . . . then the landscapers arrived. In two days the lawns (free from crabgrass) were velvety smooth, flowering trees and evergreen shrubs seemed to take root overnight; the flagpole was erected and the Stars and Stripes unfurled in the breeze. The architect's blueprints, sketches and plans were now completely translated into the permanency of stone and mortar—the new Headquarters Building.

Already the building, faced with our own native Indiana limestone, has lost its raw, new appearance and has the pleasing quality of fitting into its surroundings. As years go by this quality will be increasingly enhanced as the stone weathers and acquires the patina of age. M.E.R.



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1. Best, C. H., and Taylor, N. B.: The Physiological Basis of Medical Practice, ed. 6, Baltimore, The Williams & Wilkins Company, 1955, p. 578.

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Research in the Service of Medicine

The Search for Natural Sources Of Pharmaceutical Materials

S. BARKSDALE PENICK, JR.
New York, New York*

FOR UNCOUNTED CENTURIES, medicine depended wholly on products occurring in nature. As science unfolded, the emphasis changed swiftly to man-made substances, chiefly those of chemical invention. Chemicals have both a practical and intellectual appeal. They are understandable, identifiable, and uniform whereas products of nature are prone to be elusive, even cantankerous. Yet many botanicals have survived, including digitalis, ergot, opium alkaloids, belladonna, cascara, and many others.

In their research programs, pharmaceutical companies continue to devote their major energies to man-made substances, but as competition increases there is a growing tendency not to overlook the possibilities of the plant world. To try to determine the extent of botanical research a questionnaire was submitted to the membership of the Pharmaceutical Manufacturers Association, the industry's trade association, and the information obtained is available for the first time.

New Sources Sought

More than two million dollars was spent in 1961 by about twenty-five members of the Pharmaceutical Manufacturers Association in seeking new drugs from plant sources. This is about one percent of the industry's total research expenditures, but it nevertheless represents a definite, if modest, renaissance in this area of investigation.

The largest budget of a single company for the current year is $400,000 and one of the smaller houses is operating with an $8,000 annual appropriation. Investigation takes many forms but often consists of the sponsorship of botanical explorations in various parts of the world. In fact it is safe to say that almost no part of the world is escaping attention today and samples of botanical materials with alleged curative properties are pouring into this country from Central and South America, Africa, Formosa, Borneo—in fact from every part of the globe with the exception of the Iron Curtain countries (Figures 1 and 2).

Questioned as to the objectives of their botanical investigations, most companies mentioned the hope of identifying an active principle of some heretofore uninvestigated plant that would be therapeutically useful. Reserpine was frequently cited as an indication of what might be found. Almost all of the investigators agreed that the botanical area had been little explored in the light of modern technics and sciences, and at least one respondent noted his company's frank interest in synthesizing any botanical derivative found to be medicinally active.

Investigations for drugs from natural sources have always been confronted with particular and special problems. The probability is that the odds against success are no greater than they are in an antibiotic screening program, or even in the synthesis of new organic chemical compounds, but the complexities of botanical research have seemed more baffling.

Plants Used Against Many Ills

Most obvious is the infinite variety of nature and the ingenuity and often unreliability of man in bending nature's products to his uses. As an illustration *Pharmacographia Indica*, published in Bombay be-

* Chairman of the Board of S. B. Penick & Company, and Chairman-Elect of the Board of the Pharmaceutical Manufacturers Association.

tween 1889 and 1893, consists of three volumes totaling 2,172 pages of text plus an 83-page index and a 205-page appendix. When the Indian flora is added to nature's contributions in every other part of the globe the enormity of the problem of selection alone becomes apparent.

Next perhaps, comes the confusion of the folklore itself. Chemicals are comparatively modern and antibiotics definitely new. But the old plant materials have been investigated after one fashion or another for centuries and the body of misinformation to be winnowed is huge (Figure 3). To cite *Pharmacographica Indica,* here is the description of the therapeutic usage of one plant material that:

". . . has long been used by the Arabs and Persians who consider it to be hot and dry and to have deobstruent, resolvent and alexipharmic properties. The flowers and leaves are supplied as a poultice to relieve nervous headaches. The juice of the leaves administered internally is said to be anthelmintic, antilithic, diuretic and emmenagogue and it is thought to resolve cold swellings and expel the humours which give rise to them. The bark and leaves are used internally and externally in leprosy and scrofula. A poultice of the flowers is said to kill lice and cure eruptions of the scalp. The fruit . . . is worn as a necklace to avert contagious diseases. In China, it is used as a vermifuge."



FIGURE 1

ZULU "DRUG MARKET" in Durbon, Union of South Africa seaport, where the native "physicion" moy obtoin chorms, leopord skins, rhinoceros horns, snake oil ond animol fat for his therapeutic ormomentarium.

Or consider a Malayan cure for asthma as offered to one of the large pharmaceutical companies:

"I give below the detailed procedure how the medicine used to be prepared by my late father. The seeds (which are dispatched to you) were soaked in cows' urine for seven days. On the eighth day they were washed in water and then boiled in fresh milk in an earthenware pot for 20 minutes. Then they were washed again with water.

"The boiled seeds were then put into an earthen pot, covered with an earthenware lid and sealed off with soft clay.

"The earthenware pot then was put on dried cow dung cake fire. The cow dung cake used to be covered over the pot entirely. When the fire went out the pot was taken out of the ashes and the lid broken off to remove the seeds. Those burnt seeds then just looked like bits of charcoal. Those seeds were the main composition of the medicine.

"One such burnt seed used to be mixed up with five betel leaves (betel leaf is used in the east for chewing) and nicely mixed up in a stone grinder to form a paste. This paste then was used to be divided up into 14 parts and made into 14 pills and then dried in the sun.

"One such pill used to be prescribed to the patient suffering from asthma to be taken in the morning and one in the evening. Morning dose of one pill was administered with butter after being mixed up. Evening one pill with honey as above.

"This treatment used to be continued for three consecutive weeks. In the first week the patient used to complain of excessive



FIGURE 2

MEDICINAL HERB MARKET in Abidjan, Ivory Coast, provides "witch doctors" and herbalists with plants for their prescriptions.

cough with running flame (phlegm). By second week the patient was more on the normal side and by the third week the patient appeared completely cured.

"The details given above about the preparation of the medicine were identical as it used to be prepared by my late father.

"There is no denying about the curative properties of the seeds to cure certain types of asthma which I have seen personally.

"But I must say there were cases that did not respond to the treatment."

To solve the problem of selection, different pharmaceutical companies have used various methods. For a time, one company concentrated only on those plants reported to be poisonous. Another limited its investigations specifically to arrow poisons. More recently, attempts have been made to investigate the flora of some prescribed area or to concentrate on plant families known to be rich in alkaloids.

The Complexity of Nature

Even when a specific natural material has been chosen by an investigative group, nature has not finished her complexities. When *Rauwolfia Serpentina* began to assume importance, the literature disclosed close to 100 species and variants, any one of which might or might not contain reserpine or other alkaloids. Many of these were investigated and more than 65 separate and individual alkaloids have been identified from various Rauwolfia sources. One pharmaceutical manufacturer (CIBA) provided the leadership in these studies which contributed not only to therapeutic advancement, but to fundamental chemical knowledge as well.

The botanical investigator is further plagued by problems of season. The plant Lobelia does not develop its alkaloid until the seed capsules form on it. Samples gathered before the appropriate season of the year would show almost no active principle. Even identification of species is often difficult and the question of availability, the extent to which a given plant occurs naturally, and the practicability and means of securing commercial quantities are often uncertain and require experienced and sober study.

In short, botanical research has the unique problems of translating misinformation into accurate modern data and the consideration of natural variations as well as an abundance of materials. In spite of the hazards, these member firms of PMA



FIGURE 3
NATIVES ARE SHOWN drying quinine bark in the Eastern Congo which was a major source of this drug during World War II prior to the advent of synthetic anti-malarial products.

are willing to risk their dollars in this highly competitive search for new therapeutic materials. The most significant aspect of the current more than two million dollar outlay is that it is devoted almost entirely to what might be called basic research, the seeking out of new and original materials.

It is probable that this is the largest sum of money yet appropriated for such generalized research in this area. In years past, even larger amounts have been spent for specific objectives, as for example the quest for economical raw materials from which to produce steroids. One firm alone estimates its expenditures to this end at more than one million dollars, and it is likely that 10 million dollars has been spent by the industry for this single purpose.

The search for new and better drugs continues. Somewhere in some little known part of the world, or even perhaps in a neighboring field, a collector or scientist is drawing careful samples of natural materials, identifying them as best he can, and dispatching them to American pharmaceutical research laboratories. One of the objectives of this search today is in the cancer field where literally thousands of botanical derivatives, some having definite promise, have been screened. Perhaps in the future plant materials will be the means of alleviating this disease. ◄

Two of Every Three Americans Qualify for Military Duty*

SIXTY-EIGHT PERCENT of the American youths liable for military duty during recent years have qualified for service in the Armed Forces, according to a study covering the post-Korean War period just published by the Army Surgeon General's office.

This compares with 76% that were qualified during the Korean War. Part of the decline in the percentage of youths acceptable has been due to the raising of the mental standards in 1958—a change that decreased the draftees' qualification rates by some six percent.

Of the 32% of the total manpower pool not qualified for service in recent years, only about half have been turned down for medical reasons. The remainder either failed the mental tests or were rejected for administrative (primarily moral) reasons.

The study, prepared by Bernard D. Karpinos, Ph.D., of the Medical Statistics Division, is the first to analyze the results of the examinations of all segments of the youth population liable for military service, and includes data not only for draftees but also for those who voluntarily enlisted in the Armed Forces.

The study covers from August, 1953 through June, 1960, and is divided into two periods—from August 1953 through July 1958, and from August 1958 through June 1960. This split was made because the mental standards were raised in August 1958, when Army classification battery tests were added to the existing Armed Forces qualification test.

A comparison of the data for draftees with that for voluntary enlistees in the 1958-60 period shows a striking difference in the percentage of each group qualified for service. Only 49% of the draftees were found acceptable as compared with 93% of voluntary enlisted that were qualified for military duty.

Previously published studies that dealt exclusively with the results of the examinations of draftees have been, "grossly and quite misleadingly — misinterpreted," according to the study.

"Much concern has been expressed of late about the 'physical fitness' of American youth," the study continues. "The disqualifications of youths for military service has been widely quoted in this connection as corroborative evidence."

Four Items Overlooked

The study lists four points that have been overlooked in interpreting the previously published data:

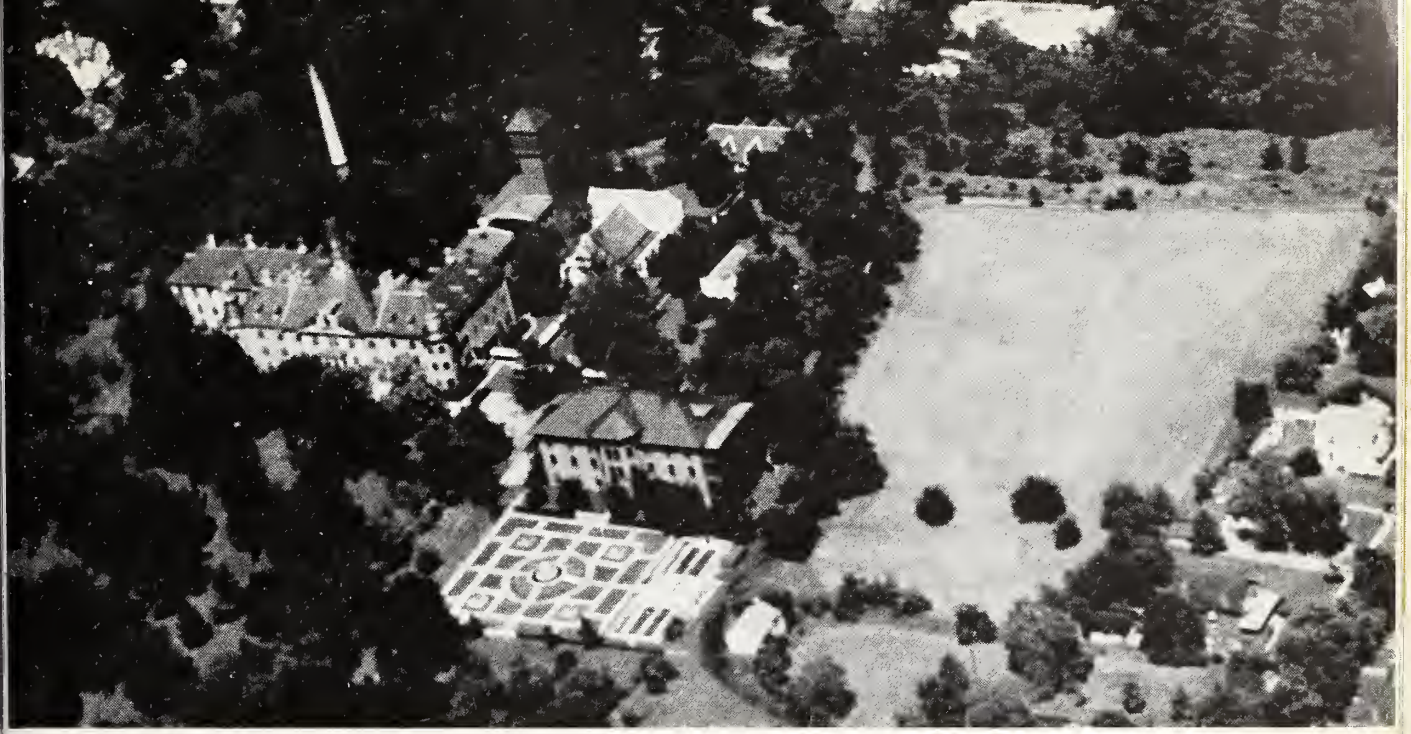
1. Quoted data have been limited to draftees, who represent only a part of the total manpower pool liable for military service. Draftees are a residual group consisting largely of youths who cannot qualify for either regular enlistment or enlistment in the various reserve programs, or who have known disqualifying defects and do not try to enlist.

2. Disqualifications have commonly been taken to represent medical disqualifications alone, disregarding the fact that they also include disqualifications for administrative reasons and for failure to pass mental tests. The proportion of disqualifications for failure of the mental tests is about as large as that for medical reasons.

3. The assumption that all the medically disqualified youths can be rehabilitated, or

Continued

* News Release from the Office of the Surgeon General, U. S. Army, Washington, D. C.



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that their disqualifying conditions could have been prevented through an exercise program. Such an assumption is hardly justifiable without making a diagnostic evaluation of the specific causes of disqualification. Certain disqualifying defects, such as hernias, punctured eardrums, or diabetes could hardly be remedied by such programs.

4. The failure to recognize that a medical evaluation for military service and an evaluation for fitness based on physical fitness tests are two different types of evaluations. Many "physically fit" youths are not medically qualified for military service — many nationally known professional athletes provide such examples. On the other hand, many youths who are qualified for military service would rank low on a physical fitness test. ◄

"UNFORTUNATE ERRORS"

The March 1962 *Bulletin of the San Diego County Medical Society* quoted *The Allegheny County Medical Bulletin* which in turn quoted the *Weekly Labor Forecast and Review* as follows:

"The Medical Defense Union, (in England) which handles claims brought against government doctors and hospitals revealed an almost unbelievable number of slip-shod practices, including errors in diagnosis and haphazard record keeping.

"The Agency revealed that in 28 surgical cases either the wrong patients have been operated on, or the right patients have been operated on for the wrong things because of mixups in identity or records.

"Such errors are indefensible, the agency said. It suggested that patients due for operations be marked with an 'X' on the forehead in indelible ink and that the area to be operated on also be marked."

Sounds like a grand idea! We trust the English bureaucrat responsible for removing the indelible X's will get disentangled from governmental red tape and paper work in time to institute erasive procedure before Monday's "X" becomes Tuesday's "X", and Wednesday's, and Thursday's, and . . . these operations could go on forever.

It's the old story that government intervention has not prevented the wrong "blokes" from being operated, and the report suggests that the frequency of such misdeeds is increasing. Could it be that after years of being forced to whistle the government's tune, the English doctors really don't give a damn?

"How do you feel lately, Mrs. K?" "Well, Doctor, some customers still get on my nerves'... but somehow this doesn't bother me as much... I feel better now and people seem easier to get along with..." "Feel sleepy?" "No, nothing like that."

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The Hartford Hospital Fire*

ERNEST JUILLERAT, JR.,
Assistant Fire Record Editor
National Fire Protection Association**

FIRE IN THE Hartford Hospital, Hartford, Connecticut on December 8, 1961, killed seven patients, four employees, and five visitors. Fire originated in a rubbish chute, burst out a chute door on the ninth floor, and roared down the corridor, feeding on combustible interior finish. Some of the occupants of the ninth floor escaped down the enclosed stairways, while others were trapped in rooms. Those of the trapped who kept room doors closed and placed wet bedding around the cracks of the doors survived.

Hartford Hospital has been described by some, including its architects, in such terms as "fireproof" and "one of the safest buildings in the world." The fire itself has been described as a freak—something that could happen only once in a lifetime. Looking down the ninth floor corridor before the fire, most people would have said that it would be preposterous to assume that a fire of any proportions could occur there. It just couldn't happen in this brick and concrete building, which was designed and constructed in accordance with the building and safety codes of the day, with its sprinklered hazardous areas, its smoke-stop doors on each floor, its enclosed stairways, its alarm system, and its employee training, they would say.

But it did happen. And the flaws were very obvious after it happened — delayed alarm, hazardous rubbish handling chute, combustible fiberboard ceilings in corridors, undivided concealed ceiling space, partial sprinkler protection, manually closing smoke barriers.

Construction Features

The 13-story, with basement and subbasement, fire-resistive building with white glazed brick exterior finish was completed in 1948. Partitions are of utility tile and plaster with linoleum wainscoting and a plastic-covered fabric finish above. The basement, subbasement and thirteenth floors (service areas) were sprinklered because they were considered to be hazardous areas.

The metal rubbish chute, where the fire started, was not unique. It was approximately 22 inches in diameter and extended from the subbasement to the thirteenth floor with a three-inch vent pipe at the top to vent off odors. Also at the top of the chute was one 165-degree sprinkler. An aluminum door opened directly from the chute into the corridor at each floor.

The chute doors were flush with the wall and were self-closing by use of a spring-type, side mounted hinge. Some of these doors closed and latched under pressure of the spring and some didn't. The present NFPA Standard for Incinerators and Rubbish Handling, NFPA No. 82, 82A, which was first adopted in 1948 (after the Hartford Hospital was built) calls for service openings to be equipped with self-closing

* This report is based in part upon evidence collected by Mr. Juillerat, Rexford Wilson, NFPA Fire Record Editor, and Robert S. Moulton, Secretary, NFPA Committee on Safety to Life, who visited the scene of the disaster the day after it occurred.

** The National Fire Protection Association, a non-profit membership organization open to all concerned with fire safety, issues a number of standards and guides dealing with fire protection and prevention problems in hospitals. For information about publications and membership, write the NFPA at 60 Batterymarch St., Boston 10, Mass.

fire doors and for each service opening to be located in a room or compartment cut off from the rest of the floor by fire walls or fire partitions.

The chute terminated at the subbasement level with a 90-degree elbow and an aluminum door from which rubbish was taken manually and hauled in carts to the incinerator nearby. Rubbish was allowed to collect in the bottom of the chute between incinerating operations and apparently it was not uncommon for the accumulation to catch fire, possibly from lighted cigarettes being thrown down the chute. These fires were usually extinguished by hospital personnel. The fire department was called if there was a noticeable amount of smoke, or fire was found in the chute. One such fire caused a small amount of damage and filled upper floors with smoke.

In the center section of the building were two banks of four elevators each and a large enclosed stairwell with standpipe connections at each floor. (See Figure I.) The center section of the ninth floor contained, in addition to these facilities, various types of service rooms and areas—kitchens, treatment rooms, and others. In the three-wing sections at the north and south ends of the center section were nurses' stations and patients' rooms.

The corridor ceiling on the ninth floor, as on other floors in the hospital, was of combustible fiberboard acoustical tile mounted by an adhesive to gypsum lath. This adhesive apparently was subject to softening under the influence of heat. The 16-inch by four-foot gypsum lath was attached to suspended metal supports by metal clips at the edges and wire loops in the center. There was a nonfirestopped open space between the ceiling and the concrete floor structure above. This space, approximately 18 inches high and eight feet wide, extended over the corridor ceiling and over the smoke doors at each end of the center section corridor.

There was a wainscoting of linoleum, and the floor was covered with linoleum. A fabric wall covering was on the upper part of the corridor walls.

The eight-foot-wide metalclad, wood-core

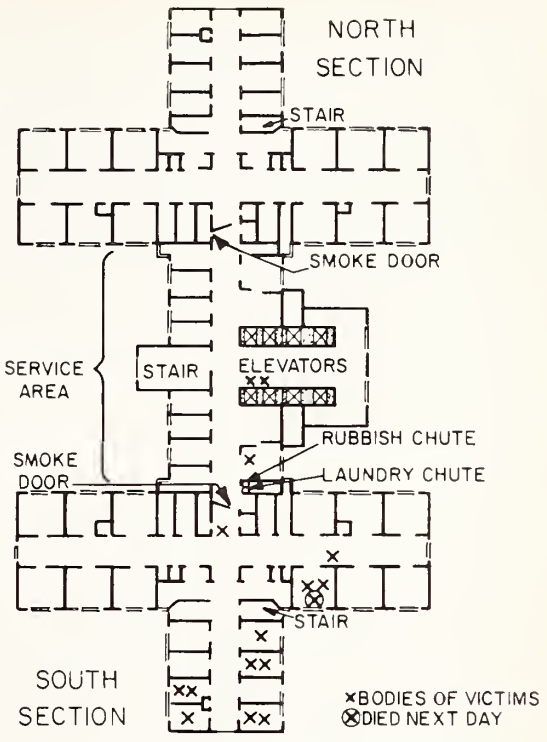


FIGURE 1

FLOOR PLAN of the ninth floor showing locations of the rubbish chute, smoke-stop doors and victims' bodies.

smoke-stop doors in metal frames at each end of the center section corridor were manually-closing, single-swing doors. Their effectiveness as smoke barriers was reduced by the open concealed space which extended over them above the combustible ceiling.

In addition to the large stairway in the center section, there was one enclosed stairwell near the corridor intersection in the north section and another in the south section. These stairways were so located that there were dead end corridors through which occupants would have to travel toward the fire to reach an exit.

Fire in the Rubbish Chute

Some 5500 pounds of trash came down the "for waste paper only" rubbish chute each day, sometimes including bottles, ether-soaked rags, rubber gloves, clothing, and other items. On December 8, the employee who handled the rubbish at the bottom of the chute had cleaned it out before going to lunch. Sometime after returning from lunch the employee went to the chute to remove the new accumulation of rubbish. He later testified that when he opened

the door at the end of the chute, he discovered fire in the chute. He immediately went to the main floor level and directed water from a standpipe hose through the door and down the chute. He was aided in this operation by an office employee. Another employee in the basement, after being alerted, pulled the rubbish from the chute until the burning material dropped down. He then used a garden hose to wet down the rubbish. Various persons reportedly watched the attempt to extinguish the fire for an undetermined period, at least six minutes and possibly longer. No one called the fire department.

Meanwhile, black smoke was beginning to come out around the chute doors on upper floors a little more than it had during previous chute fires. A nurse on the twelfth floor operated the alarm box on that floor and ordered an aide to put tape around the chute door to keep the smoke from seeping out. This alarm went directly to fire alarm headquarters at 2:39 p.m.

Fire on Nine

On the ninth floor smoke was also noticed coming from around the chute door, and the supervisor of nurses asked another employee to call in to report a fire in the chute as she closed the south smoke door and began closing doors to patients' rooms. At the time of the fire there were 793 patients in the hospital, 108 of whom were on the ninth floor. There were also reportedly 100 employees and visitors on the ninth floor at the time.

An employee working in the corridor about 20 feet north of the chute said he saw the chute door blow off and a burst of flame come out. He fled to the north and closed the north smoke door. The second alarm from hospital personnel went in at 2:40 from the ninth floor.

The exact sequence of events on the ninth floor at this time and the precise conditions in the rubbish chute which caused the burst of flame at the ninth floor probably will never be known. There is possibility of a jam-up in the chute above the ninth floor. In any case, unburned fire gases appear to have built up in the chute. These gases may have burned, blowing out the chute door on the ninth floor. Why it happened to the ninth floor instead of any other floor is unknown. Possibly the door was not latched. Possibly this door was the weakest in the series of doors up and down the chute. The waterflow from the sprinkler in the top of the chute transmitted an alarm directly to fire headquarters at 2:41.

Whatever the conditions were in the chute, the blast of fire from the chute door ignited the combustible ceiling tile in the corridor and flames roared down the hallway. It was described by those in the area as "like a flame thrower" or "like a blast furnace." Flames were reported to have been progressing down the ceiling as the fire spread to the north and to the south. The fire was so intense that even the waxed linoleum floor was reported burning, and the linoleum wainscoting was consumed. The north smoke door held, and those on the other side of the door were safe, but at the south smoke door a different story was unfolding.

The nurse who closed the south smoke door is positive that it was securely latched, and others who had been on the floor said that the door was closed, and they saw smoke coming over the top of the door. Smoke also was spreading beyond the door into the south wings by means of the concealed space above the ceiling. Another question that may never be answered is how or why the smoke door was opened at the height of the fire. Evidence points to the fact that shortly after the fire started on the ninth floor this south smoke door was manually opened, allowing the flames to sweep into the south wings where patients, employees, and visitors were holed up in the rooms. How soon this door was opened and how fast the fire spread was indicated by a ceiling-mounted clock at the corridor intersection in the south section. It burned out at 2:43½, just 4½ minutes after the first alarm went in.

Arriving fire fighters under the personal direction of Chief Thomas Lee were therefore met by an unbelievable situation—a raging inferno on the ninth floor of a "fireproof" hospital with people at the windows waiting to be rescued. Because the extended front entrance foyer on the ground floor

of the hospital building prevented placing aerial ladders close to the tall center section, the 100-foot ladders reached only to the eighth floor, but firemen at the top of the ladders gave instructions to the people at the ninth floor windows, advising them to keep the doors closed, use wet bedclothing around the doors, and remain calm until they could be rescued. Those who acted upon this good advice lived to escape unharmed. Where doors to patients' rooms did not stay closed, the occupants perished. The lack of positive latches may have been a contributing factor here. The hospital staff is to be commended for always keeping stair doors closed. This retarded the spread of smoke and prevented the spread of fire to other floors, thus probably saving some lives. Some smoke spread to upper floors through elevator shafts and chute doors.

The fire caused six of the eight elevators in the center section to stop, and one group of passengers, who were trapped at the ninth floor level, had to climb out a hatch in the top of the elevator and through the tenth floor door under protection of water spray from a fire department hose.

The bone-wearying task of carrying hose up to the ninth floor, to supplement standpipe hoses, and bringing the intense fire under control was tackled with the selfless courage so often demanded of those in the fire service. Hospital employees, firemen and policemen evacuated patients on the eighth to the twelfth floors horizontally to the north wings and some vertically from the ninth to the eighth. Firemen ventilated upper floors and quickly extinguished the last of the flames on the ninth floor where they were confined. The blackened corridors and rooms and 15 bodies bore mute testimony to the fact that disastrous fires can occur even in fire-resistive buildings. A sixteenth victim died the following day from smoke poisoning.

Conclusions

Before the smoldering ruins of the ninth floor had completely cooled, State Police Commissioner Leo J. Mulcahy and Deputy State Fire Marshal Carroll Shaw, City Fire Chief Thomas Lee and their staffs had set about to determine exactly how this almost unbelievable thing had started and why it had taken sixteen lives. Wisely, their investigation was launched while the events leading up to the disaster were still fresh in the minds of the occupants of the hospital and before valuable evidence was swept out during cleanup operations. Samples of the ceiling tile, taken by the State Fire Marshal's office immediately after the fire, were flown by Marshal Shaw to Underwriters' Laboratories, Inc., in Chicago and were found to have a flame spread rating of 180 when applied with adhesive to gypsum board, as they were in the hospital corridor. Although the hazard of these tiles was not entirely recognized at the time the Hartford Hospital was designed, the present NFPA Building Exits Code calls for interior finish in hospital corridors to have a flame spread of 25 or less.

The linoleum wainscoting was similarly tested and found to have a flame spread rating of 300. While this contributed to the fire spread, it seems unlikely that combustible material on the lower part of the wall would have burned so furiously if it had not been exposed to radiated heat from above, and to the burning of ceiling tiles that fell to the floor.

Where they were closed, the 1¾-inch-thick solid wooden doors to the rooms held in most cases for the short duration of the intense fire on the ninth floor, but the margin was thin. Some came within a quarter of an inch of burning through. At least one burned entirely through around the metal lock mechanism. The alert nurse in this room quickly put a water-soaked pillow over the area, and it held just long enough to save the three occupants of the room.

While the rubbish chute fire and the delayed alarm were important factors in the spread of fire to the ninth floor, the primary cause of the great loss of life was the combustible fiberboard ceiling tile, which, when ignited, allowed the fire to spread unchecked down the corridor. How many of the 16 lives lost would have been saved had the corridor ceiling been of fire-resistive material or how many would have survived

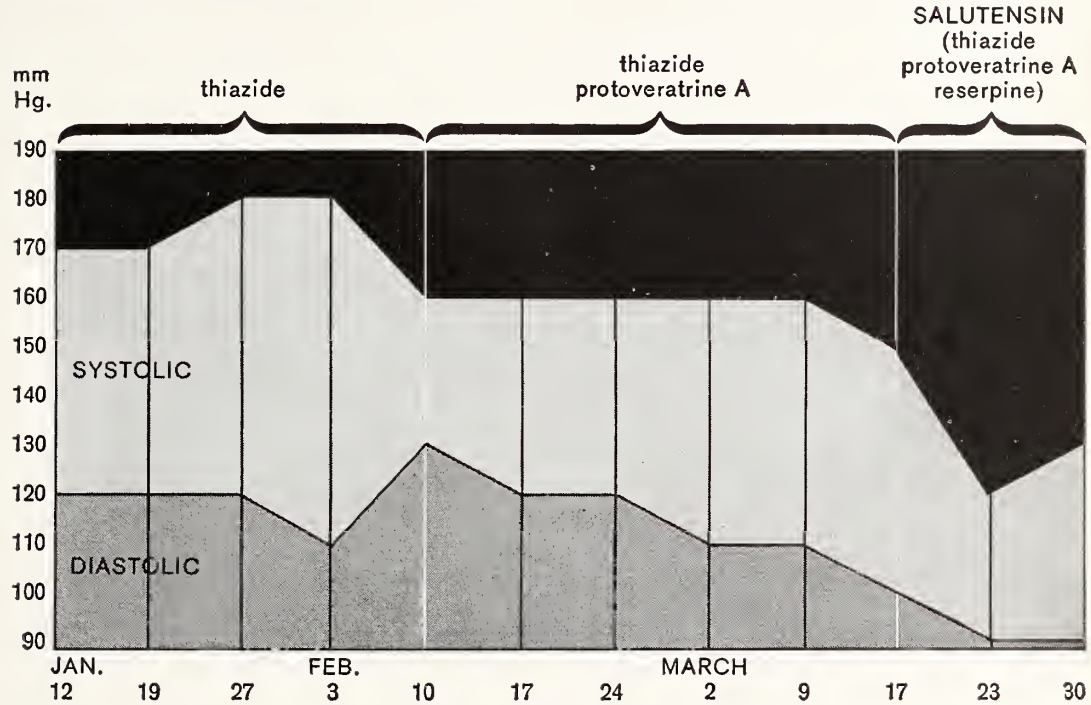
had the ninth floor been sprinklered cannot be determined for certain. Probably all of them. If the smoke-stop door had not been opened, all but three lives probably would have been saved. How many of these lives might have been saved if the exits had been properly located is another moot question. Ignition need not come from a rubbish chute fire; it could come from a fire originating in any number of other ways.

After the fire the hospital hired a fire protection expert to study all the facilities of the hospital and make recommendations to ensure the safety of the patients and employees. ◄

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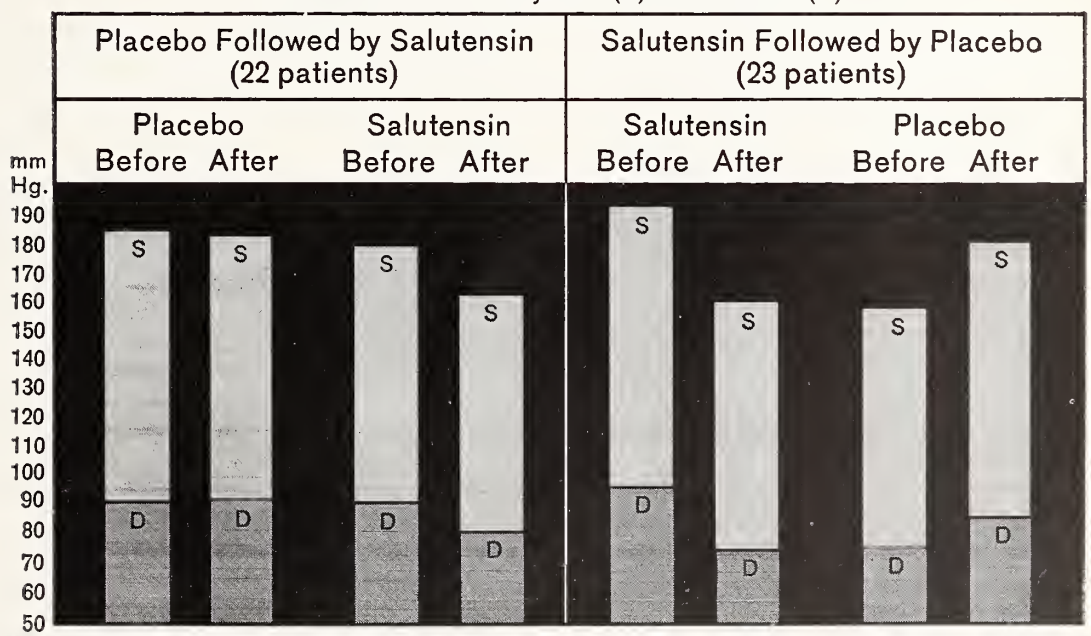
11 WEEKS TO LOWER BLOOD PRESSURE TO DESIRED LEVELS BY SERIAL ADDITION OF THE INGREDIENTS IN SALUTENSIN IN A TEST CASE

(Adapted from Spiotta, E. J.: Report to Department of Clinical Investigation, Bristol Laboratories)



3½ WEEKS TO LOWER BLOOD PRESSURE TO DESIRED LEVELS USING SALUTENSIN FROM THE START OF THERAPY IN A "DOUBLE BLIND" CROSSOVER STUDY

Mean Blood Pressures–Systolic (S) and Diastolic (D)



In this "double blind" crossover study of 45 patients, the mean systolic and diastolic blood pressures were essentially unchanged or rose during placebo administration, and decreased markedly during the 25 days of Salutensin therapy. (Smith, C. W.: Report to Department of Clinical Investigation, Bristol Laboratories.)

BRISTOL LABORATORIES / Div. of Bristol-Myers Co., Syracuse, N.Y.

Joint Statement on Narcotic Addiction in the United States

by

American Medical Association and
National Research Council of the
National Academy of Sciences

THE FOLLOWING joint statement of the American Medical Association, National Research Council was developed because there is widespread misunderstanding on the part of the public and various professional and other groups about the problems associated with narcotic addiction.

As a matter of fact, these organizations share common objectives concerning narcotic addiction in the United States, viz., that present efforts should be strengthened to (a) reduce, and if possible, eliminate such addiction and (b) to provide the best possible treatment and rehabilitation services to addicted persons.

Representatives of these organizations met to explore and clarify their respective views and to develop the attached statement. This statement makes it clear that these organizations not only have common objectives regarding narcotic addiction in the United States but are agreed upon the major methods of effecting these objectives.

Joint Statement

The American Medical Association, and the National Research Council for many years have been concerned about and have studied the narcotic drug addiction problem. To assist in carrying out its studies, the American Medical Association collaborated with the American Bar Association in establishing a joint committee which made an interim report to the two organizations in 1958, and a final report in 1959.

It is concluded that there is widespread public and professional misunderstanding about this subject, specifically (1) that the Federal Bureau of Narcotics believes drug addiction to be a crime; a belief that is contrary to the federal law and its application by the bureau, and (2) that the American Medical Association proposes the establishment of community ambulatory clinics for the withdrawal of narcotics from addicts or for the continuing maintenance of addicts on narcotics; a belief that is contrary to the official position of the American Medical Association.

Historically society has found it necessary to employ legal controls to prevent the spread of certain types of illness that constitute a hazard to the public health. Drug addiction is such a hazard.

The successful and humane withdrawal of individuals addicted to narcotics in the United States necessitates constant control, under conditions affording a drug-free environment, and always requires close medical supervision.

The successful treatment of narcotic addicts in the United States requires extensive post-withdrawal rehabilitation and other therapeutic services.

The maintenance of stable dosage levels in individuals addicted to narcotics is generally inadequate and medically unsound. Ambulatory clinic plans for the withdrawal of narcotics from addicts are likewise generally inadequate and medically unsound.

As a result of these conclusions the American Medical Association and the National Research Council oppose on the basis of present knowledge such ambulatory treatment plans.

These two organizations support (1) after complete withdrawal, follow-up treatment for addicts, including that available at rehabilitation centers, (2) measures de-

signed to permit the compulsory civil commitment of drug addicts for treatment in a drug-free environment, (3) the advancement of methods and measures towards rehabilitation of the addict under continuing civil commitment, (4) the development of research designed to gain new knowledge about the prevention of drug addiction and the treatment of addicted persons, and (5) the dissemination of factual information on narcotic addiction.

Statement of the Bureau of Narcotics

Mr. Henry L. Giordano as the Acting Commissioner of the Bureau of Narcotics issued the following statement relative to the joint statement of the American Medical Association and the National Research Council regarding the narcotic drug addiction problem in the United States:

"The Federal Bureau of Narcotics wishes to express its complete approval of the views contained in the statement of the American Medical Association and the National Research Council. The Bureau of Narcotics believes that the American Medical Association-National Research Council statement clarifies a subject on which there has been widespread public and professional misunderstanding. The Bureau of Narcotics subscribes completely to the view that the federal law does not consider drug addiction a crime.

"The National Research Council and the American Medical Association have performed an outstanding public service which will greatly advance the joint efforts of the law enforcement agencies and medical-health organizations who are charged with the responsibility for dealing with the narcotic drug problem.

"The Bureau is pleased to note that the American Medical Association has reaffirmed its position opposing the establishment of community ambulatory clinics for the withdrawal of narcotics from addicts and the continuing maintenance of addicts on narcotics.

"The Bureau of Narcotics also supports the five measures set out in the last paragraph of the statement of the American Medical Association and the National Research Council which will provide addicted persons with the best possible rehabilitative treatment programs and reduce, and if possible, eliminate narcotic drug addiction." ◄

Re: H. R. 4222:

Medical Care Through Social Security—A Trojan Horse

(A Layman Looks at the King-Anderson Bill)

JOHN W. BAILEY, JR.
Greenwood, Indiana

HOW TO PROVIDE medical care for the elderly is one of the controversial issues of the day. Almost everyone recognizes there is a problem here and the issue is not *whether*, but *how* to provide this care for the long term benefit of both our elderly and other citizens.

Perhaps the strongest endorsement of our present system of medicine is that longevity has been increased greatly in recent years largely because of our free incentive system which some would now have us change.

The administration is asking the public to buy a medical care program for the elderly who are eligible for Social Security benefits, called the King Bill, to be administered through the Social Security mechanism. They have attached an "emergency" label to this bill. Is it really needed?

The last Congress passed the Kerr-Mills act which is administered locally and which provides medical care for everyone over 65 needing financial aid in meeting necessary medical bills regardless of whether or not the person is qualified for Social Security benefits. Now, before the Kerr-Mills law has been given a chance to prove or disprove itself, the administration is trying to drum up support for its Social Security approach which is compulsory and applies regardless of actual need or desire.

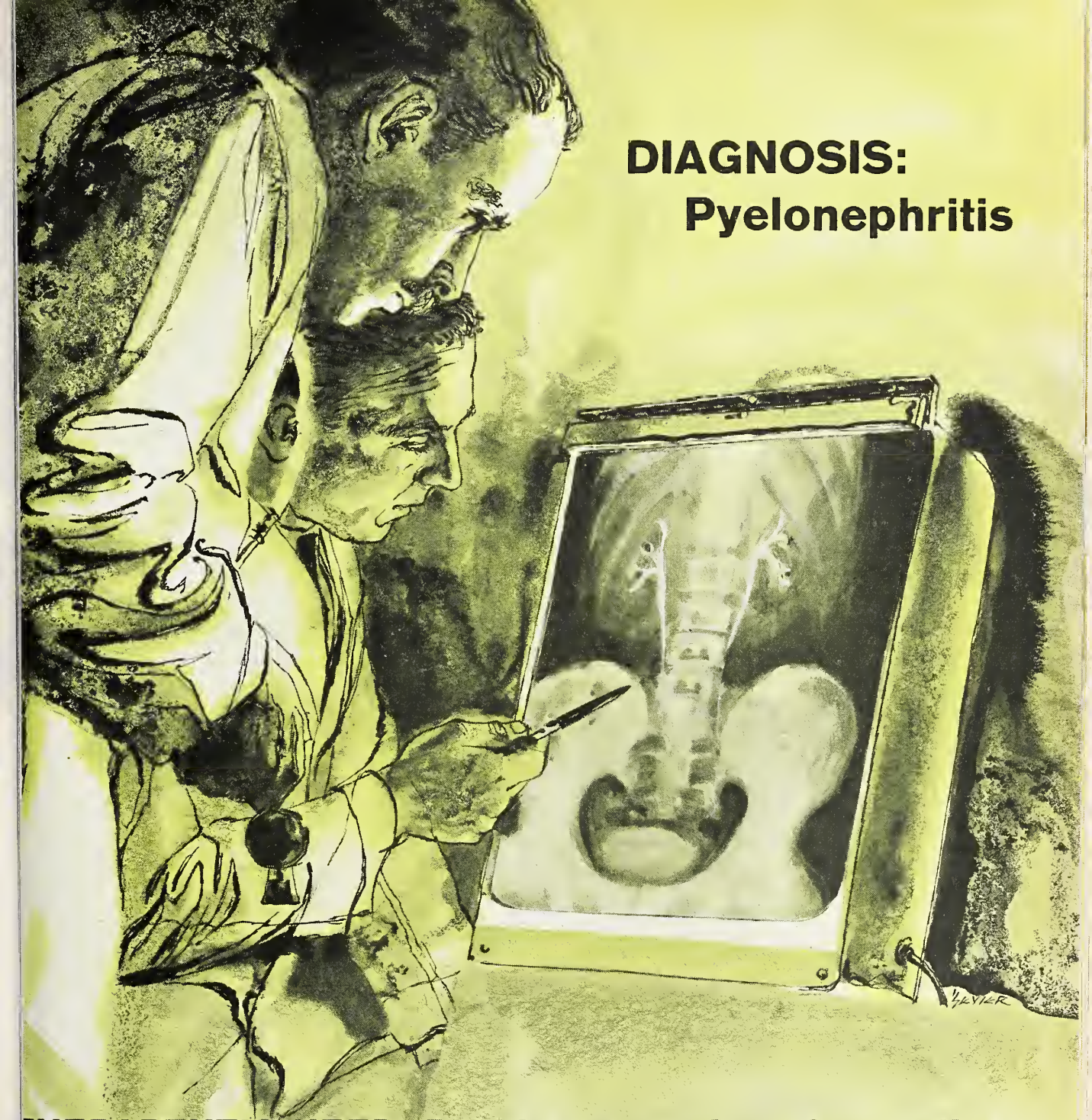
The cry from the Health, Education and Welfare Department is that the Kerr-Mills law is too slow in being implemented by the states and that the states are reluctant to get the program started. What better proof is there that this medical care for the aged situation is not a "national emergency," as broadcast from Washington, than the fact that the states and local communities have not all rushed headlong into this program. Any thinking person knows that anything worth-while, of this importance and magnitude doesn't happen overnight. Twenty-eight states have the Kerr-Mills plan in operation at last count which isn't exactly dragging out the building of Rome.

King Bill Provides only Limited Coverage

Let's compare coverage. First of all, the present law, the Kerr-Mills approach, covers *all* medical expenses for those who need financial assistance. The King Bill provides only for hospital room and board for a limited period (90 days), nursing home care only after first being admitted to a hospital, and other specified expenses. The King Bill *does not* include or pay for physicians or surgeons fees, but the Kerr-Mills law does.

Insurance statistics show that the King Bill would provide only 25 to 30% of the medical needs for the average elderly person. Then when unable to collect under this bill, the elderly must then apply for

Continued



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benefits for the other 70-75% from the Kerr-Mills act; the very bill the administration is trying to suppress. The King-Anderson bill is therefore obsolete in concept as a large portion of treatment and expenses are incurred outside the hospital, as medicine is practiced today, particularly in the area of degenerative diseases common to the elderly where thousands of dollars can frequently be spent without being a hospital patient.

Thus the backers of the King Bill are ignoring those thousands of our elderly citizens not quite sick enough to be hospitalized. What will happen to the already overcrowded hospitals if expenses are paid only if a patient is hospitalized? Jammed is right, with people not really belonging there, but either being forced there for financial reasons in order to "collect" or insisting on it as a matter of "right."

The Magic $90.00

It is easy to see that the King Bill is wasteful because it is compulsory and therefore covers people whether they need or want it or not. In fact, a millionaire can collect at the expense of other taxpayers. The Kerr-Mills Act pays expenses in full if needed, whereas the King Bill is $10.00 deductible for each day in the hospital up to nine days.

Now if the elderly are as destitute and financially unable as the proponents of the King Bill would have us believe, where on earth are these people going to dig up this magic $90.00? If they have $90.00 available, either they or their children can afford an adequate bonafide insurance program.

The King Bill ignores several million elderly who are not eligible under Social Security. Kerr-Mills includes everyone with a genuine need. In Indiana a recent survey of the hospitals showed that less than two percent of those over 65 could not pay their hospital bill. Over five percent of those in the 18-30 age group could not pay their hospital bill, and yet this is the very unable group that would be called upon to bear the largest load of financing care for the elderly, if the King Bill becomes law.

Social Security a Tax not Insurance

If the Kerr-Mills method is good enough for those not under Social Security (and you cannot provide more) why isn't it also good enough for those that are under Social Security? Isn't it the height of folly to transfer the overhead of medical care from the local level, where local people know the situation and needs, to Washington with its top-heavy management fee? Figures show that welfare at the federal level costs just about double.

The charge is sometimes made that many people will not accept welfare or become a ward of the state in order to receive medical treatment and thus the Kerr-Mills law will not solve the problem. First of all, present Social Security benefits are a welfare program. If it was an insurance program everyone who had paid in would receive benefits in ratio to his premium. However, Social Security dues are a tax for the general use of the government, and payment of that tax does not automatically entitle anyone to the receipt of benefits. The benefits are a welfare program which can be cancelled or curtailed by Congress at any time. Real honest to goodness insurance has guarantees. Social Security does not. In fact during a recent lawsuit, Social Security officials told the Supreme Court that Social Security wasn't actually insurance, but they used that term to sell it to the people!

Under the Social Security approach the "welfare" is concealed enough to fool many people into thinking they are paying their own way since the program apparently provides for everyone regardless of need or want. The 15,000,000 people now being claimed as eligible for benefits would never pay one penny toward their medical care under the Social Security philosophy as they are no longer paying Social Security taxes. Those approaching 65 would pay but little toward their possible benefits. Their benefits would be paid from the tax payments of others. Now if this isn't welfare—taking from one group and giving to another—what is it? Most of us don't object too much to paying taxes for a necessary welfare program, but let's be honest

Continued



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Continued

enough to recognize and call it by its right name.

King Bill is Socialized Medicine

We are continually being assured by the HEW promoters that the King Bill will not lead to socialized medicine. Here many of us agree. It *is* socialized medicine. Webster's New Collegiate Dictionary defines "socialized medicine" as follows: "Administration by an organized group, a state, or a nation of medical and hospital services to suit the needs of all members of a class or classes, or all of the population, deriving funds from assessments, philanthropy, taxation or other sources." Please note that the proposed way of financing this program is by an increase in Social Security taxes, not by premiums paid by those using the benefits.

It is clear why the administration dares not admit that this is socialized medicine. They know that the people fear and abhor socialized medicine and would never accept this program if they understood this, or if it were called by its proper and actual title.

Do we have other evidence that this program will go beyond caring for our elderly loved ones and that we owe this to our senior citizens? And isn't it nonsense to consider this as socialized medicine? Ex-Congressman Forand, Republician from New York, who introduced the socialized medicine bill which preceded the King Bill of this session of Congress said: "If we can only break through and get our foot inside the door, then we can expand the program after that." Wilbur Cohen, Assistant Secretary of Health, Education and Welfare, states that the ideal in social benefits will be reached when each individual is paying as much in social benefit taxes as he is paying in income taxes. If the American people had the vaguest idea what the ultimate cost of a government medical care program would be to them and their children, they would have blown the dome off the Capitol Building with their protests before now.

Socialized Medicine is Big Step to Socialistic State

What about the cost of the proposed King Bill? The administration estimates of $1.1 billion first year costs of the bill are about half the conservative estimates of experts in the medical care field. Actuaries state that costs will reach $5.4 billion by 1983, while the administration places the costs per year by 1990 at only $2.5 billion. Do you prefer estimates or experience?

This proposed plan, plus already scheduled increases in the Social Security tax for old-age benefits will increase the cost of this tax beyond the regular income tax for many. As an example: By 1968 the total Social Security tax of a man making $4000 a year with three dependents will be $380.00, but he will pay only $245 in income taxes. It is a tax which will soak the lower income group—including those that will ultimately be needing the help.

Just how unsound this proposed legislation really is can be seen in a speech prepared last November by one of HEW's top researchers. In it, he reported that HEW's cost estimates for old-age medical insurance were about one-fourth of probable costs. The researcher's speech was cancelled and his full report was never issued. However, HEW was unable to stop circulation of an abstract of it.

The Social Security system now has approximate assets of 20 billion and liabilities of 360 billion. This is $1 in assets for every $18 in liabilities. In the last three years, general tax funds have had to be diverted to keep the system from going broke and yet more benefits and lower eligibility are relentlessly and recklessly voted in. The addition of "free" health services to this teetering tax-supported scheme could likely collapse and destroy the whole system. Isn't your health too important an asset to entrust its being financed by such a set-up?

It has been said that socialized medicine is the one big step necessary toward a complete socialistic state. Consider the following from the handbook of the Fabian Socialists: "Let's get a little at a time. First establish that it is the government's business to operate a so-called health in-

Continued



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Continued

surance service. Make it appear inexpensive. Make it look innocent. Provide only for a few. Give only a few services. Buy off a few groups who might gain by it. Then let the pressure build up from the natural reaction. 'I'm paying for it, why can't I have it too?' or 'This is not enough, why not give me more as I expected?' Then proclaim loudly, 'This is not Socialism'."

As Norman Thomas, who was the candidate for president on the Socialist Party ticket, many times predicted: "The American people will never *knowingly* adopt socialism, but under the name of liberalism, they will adopt every fragment of the socialist program until America will one day be a socialist nation without knowing how it happened." Incidentally, all but two planks of the Socialists Party platform of 1932 are now law!

King Bill Violates U.S. Constitution

Secretary of Health, Education and Welfare Ribicoff, who would administer this proposed legislation has been quoted as saying that the law would not allow government control of the practice of medicine, the manner in which services and care are provided, etc. However, the King Bill itself states that hospitals, nursing facilities and home care agencies must meet such conditions of participation as the Secretary of HEW may require. It is hardly any surprise that the federal government will regulate and control that which it spawns and subsidizes.

It is a sad commentary to see Americans being bribed with their own money over the matter of their health care which is by far the best in the world.

One of the primary reasons for the inevitable failure of governmental medicine is that when people are forced to pay for something whether they want it or not, they are inclined to use as much of it as they can in an effort to get their money's worth.

The American people should need only one argument to spur outraged public opposition to the pending King Bill and that is the fact that this legislation violates fundamental provisions and principles of our Constitution. The 10th Amendment to the U. S. Constitution provides that "the powers not delegated to the U. S. by the Constitution . . . are reserved to the States respectively or to the people." The Constitution does not give the Federal Government any power or control over, education, health, welfare, etc. Besides all the other valid objections, the King Bill is clearly unconstitutional, if the Constitution still means anything!

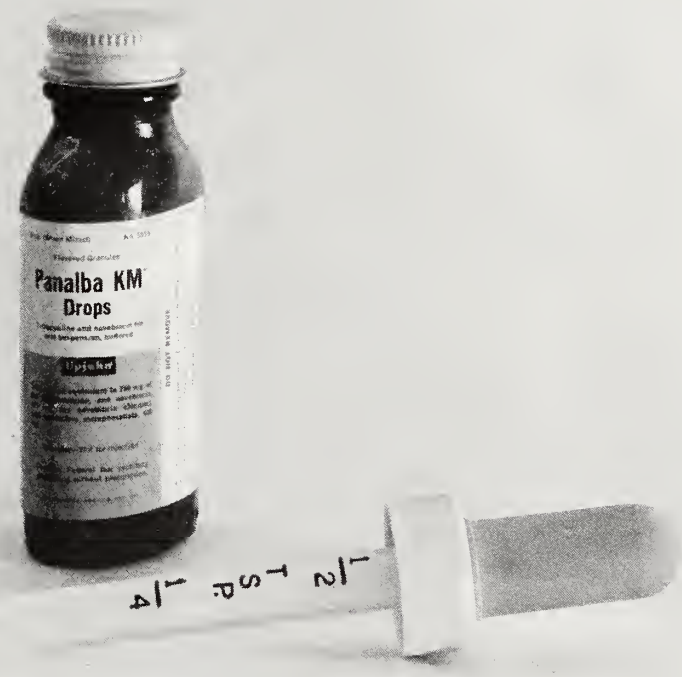
With our degree of medical care the highest in the world, what does the administration have in mind in its wish to impose the monstrosity of State Medicine on us when history has shown so clearly that government control and intervention seriously lowers the quality of medical care? Are our officials being politicians and interested in some potential votes rather than being the great humanitarians as is implied by their propaganda? The stampede for the King Bill seems to center in Washington rather than out in the grass roots.

Failure of Socialized Medicine Abroad

In England, for example, the government medical program costs about five times the original estimates made 15 years ago when their plan began. It is expensive by any standard even if it provided top notch medical care, which unfortunately it does not. Medicine is now a nightmare in England. Red tape and government intervention have dangerously lowered the standing of health care there. Many are seeking out private practitioners even though it costs more. Thousands of doctors have left England to practice in America and other countries as the bureaucratic control and the restrictions on judgment and sound medical practice became intolerable. The mountains of paper work plus the heavy load of people seeking "something for nothing" has made an assembly line out of patients passing in review. The technics and advancements there are nothing compared to ours and only one new hospital has been built in England since medicine became socialized, compared to 724 in America during this same period.

In Japan socialized medicine is failing

Continued



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with members of the Medical Association threatening to withdraw from the national health plan and go on strike, except for emergencies, unless their problems are given some consideration by the government. Germany has experienced a serious deterioration in the quality of its medical care. In France the government health service has prevented an adequate and decent hospital service from being developed. Government medical programs behind the Iron Curtain have all been failures.

All this evidence and yet our government is willing to experiment and gamble with our health.

Some people condemn the doctors and infer that it would be just good enough for them if socialized medicine comes. The obvious is, even with socialized medicine, it will still take doctors to treat the ill. Socialized medicine will not particularily hurt the doctors, even financially, but would more than likely affect the public in the inevitable lowering of the quality of care and in loss of time for the necessary personal and individual attention. With the additional paper work and regulations that will come, it is naïve to think otherwise. As usual, the public will lose.

Private Insurance Increasingly Available

Since more and more people, including right now about 65% of the elderly, are being covered by private insurance plans, this medical care problem is a decreasing one from the standpoint of paying the bill. At least it cannot be termed a national emergency when surveys of lower middle income areas reveal that less than 10% of the elderly regard their financial positions as precarious.

Other competent economic studies show that the average income of those over 65 is greater than the average under 65. That most of those over 65 have a home paid for. Living costs for the elderly are lower. Their family obligations, such as raising children and paying for their education, have been discharged.

Broader types of insurance policies are now available and being purchased by younger people who will then have this protection when they become elderly. Blue Cross and private companies have had state-wide enrollments when anyone over 65 regardless of age or physical condition could buy hospital insurance. Dozens of companies will write those over 65 on an individual basis.

The whole field of health insurance is comparatively new, but already most of the people actually wanting or needing insurance now have it. Advances in the scope of protection being offered is remarkable and there are virtually hundreds of different plans to choose from. Health insurance is the fastest growing segment of the entire insurance industry and is rapidly solving the financial portion of the medical care problem in the traditional American way.

The King Bill would result in the overcrowding and overutilization of hospitals by those who could be better cared for at home. It would encourage the placing of our older citizens in institutions instead of encouraging them to remain in the mainstream of our society. And just as surely as the sun rises and sets, it will produce a system that would be expanded into a full-fledged program of socialized medicine for everyone as new and increased demands are made first for the aged and then for those 60, then 50 and so on until socialized medicine will have engulfed us all.

Write to your Congressman and Senators now, while there is still time, to let them know how you feel about this vital issue.◄

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Gleaned from the British Medical Journal

JACK W. HICKMAN, M.D.
Indianapolis

The apparent difficulty in discontinuing steroid therapy once it has been started for bronchial asthma, is confirmed in a paper by Knowles[1]. He reports a retrospective study of 135 patients over an eight year period. When last seen 76% of the patients (71% of the females and 81% of the males) were still taking steroids. Some of these patients required only intermittant therapy; this percentage being 55.5%. The usual recurrence of symptoms with discontinuance was a major factor in continuing treatment. The patients most easily weaned were those whose asthma was seasonal. The others on whom it was easy to stop steroids were those who did not get a good response in the first place.

* * *

Surgeons' estimates of blood loss at the time of surgery were found to be grossly lacking in accuracy in a study by Hercus et al.[2] Their method was to weigh sponges dry and after use, to calculate the blood loss. Allowances were made for blood on gowns, drapes, etc. and only known volumes of water were used in the suction line. This method was employed in 412 various surgical procedures. A great range of values was found. The lowest blood loss was recorded in sympathectomies (mean loss 75cc) and the highest in aortic aneurysmectomy (mean loss over 2,000cc). The authors stress the fact that mean values are unreliable however, for although the mean value for thyroidectomy was 250cc, they ranged from 20cc to 1,500cc. Surgeons' estimates were found to result in errors of up to 100%. The authors recommend universal adoption of this simple technic to avoid both over and under transfusion of patients that can result from inaccurate estimates of blood loss by surgeons.

* * *

Russell[3] reports on the complications of the use of the vaginal pessary. Though not in use as much in recent years, this device has hazards that are worth noting. Thirteen patients had been seen at the Royal Victoria Infirmary since 1957 with major complications from the pessaries. There were six cases of vaginal cancer, six of severe vaginal ulceration (one case had an associated pelvic cellulitis) and one case of bladder and rectal fistulae which resulted from the pessary. The author feels that there is no longer any indication for the use of vaginal pessaries in the management of prolapse.

* * *

A flurry of papers [4, 5, 6] appear on the subject of procaine therapy for the aged. All this work stems from the reports of Aslan, who had reported beneficial results from procaine injections that caused rejuvenation. These three papers give the results of treatment of 134 patients. Aslan's method of giving procaine hydrochloride 5cc I.M. thrice weekly for 4 weeks with alternating rest periods of 10 days was followed by each investigator. There was no objective evidence of improvement in the treated group as compared with controls, with one exception. The studies ran for a period of 12 months and were well-planned. It seems doubtful that even these controlled studies will dampen Aslan's enthusiasm for the procaine therapy, which she feels should be called "vitamin H3."

* * *

A study on interferon, the potent antiviral substance produced by virus-infected

Continued on page 1074

INDIANA STATE BOARD OF HEALTH

MONTHLY REPORT—MAY, 1962

Disease	May 1962	Apr. 1962	Mar. 1962	May 1961	May 1960
Animal Bites	1234	785	430	806	667
Chickenpox	576	468	605	602	467
Conjunctivitis	131	97	139	126	153
Diphtheria	0	2	0	0	1
Dysentery, Unspecified	65	34	69	26	10
Impetigo	110	81	80	61	90
Infectious Hepatitis	141	212	111	247	58
Infectious Mononucleosis	80	32	23	29	30
Influenza	646	750	2206	333	437
Measles (Rubeola-Rubella)	2140	1723	1257	1093	1984
Meningitis, Meningococcal	1	5	5	4	2
Meningitis, Other	3	6	12	15	16
Mumps	603	450	397	1112	445
Pertussis	25	26	12	2	37
Pneumonia	306	124	152	136	175
Poliomyelitis	0	0	1	1	0
Streptococcal Infections	592	530	693	465	692
Tinea Capitis	16	8	5	13	43
Tuberculosis (Active)	119	78	90	Not Available	Not Available

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Medicine At Law

DECISIONS AND OPINIONS

Highlights of recent court actions pertaining to health and medicine from *The Citation* prepared by the Law Division of AMA.

*Large Award Granted in Blood Transfusion Death**—The damage award in a Federal Tort Claims Act case arising from the death of a Navy officer's wife who was transfused with the wrong type of blood was erroneously understated in The Citation, Vol. 3, No. 9, p. 49, April 14, 1961. The total award was $150,100.

For loss of the wife's services, $98,838 was granted. In arriving at this amount, the court considered the cost of a "substitute mother"—a combination of housekeeper — governess-counsellor — for six young children, and of a servant who would do menial tasks around the house. This cost was estimated at $8,500 a year. For an 18-year period until all of the children reached college age, this amounted to $100,000. The annuity value discounted at four percent was $98,838. A claim that this award should not be discounted because of the prospect of continuing future inflation was rejected. For the husband's loss of companionship and consortium, the award was $25,000 and for funeral expenses, $1,200. For the wife's conscious pain and suffering for 20 days before her death, the award was $25,000. *Legare v. United States*, 195 F. Supp. 557 (S.D., Fla., Feb. 17, 1961).

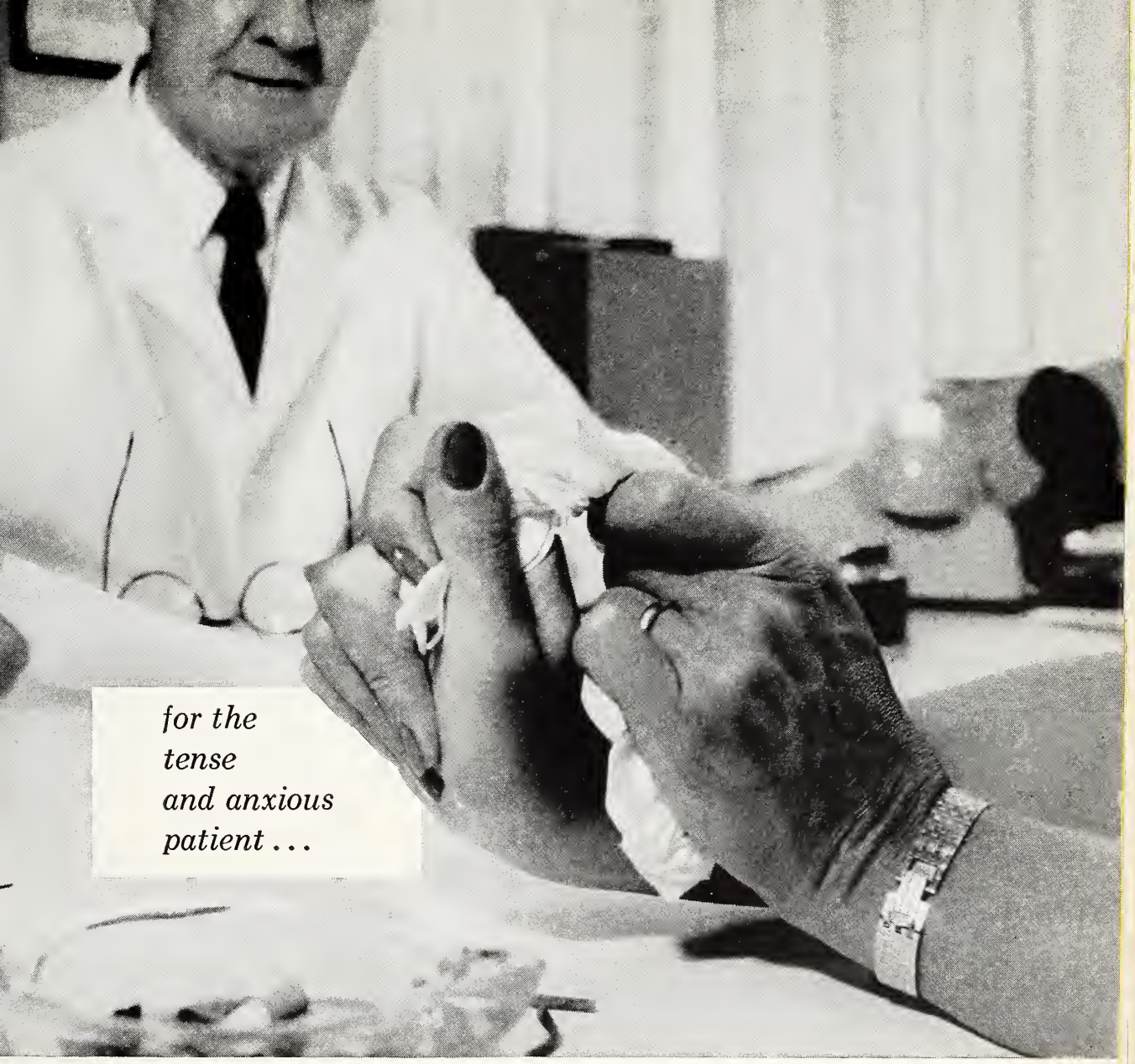
Testimony of Medical Doctors Sustains Judgment Against Osteopaths—In a professional liability suit against doctors of osteopathy, the testimony of doctors of medicine was properly admitted to establish negligence. On the basis of that testimony, a judgment against the osteopaths was affirmed by an intermediate appellate court in Texas.

A woman patient consulted the osteopaths about an abdominal pain, which was diagnosed as the result of retroverted uterus. On the basis of examinations and tests the osteopaths determined that she was not pregnant and they recommended surgery to correct the condition by suspension of the uterus. When an incision was made, they discovered that the patient was pregnant, but they continued with the operation anyway. After the operation, an adhesion occurred between the uterus and the abdominal wall which caused acute pain. At the termination of the pregnancy, a Caesarean section was required for the delivery of the baby.

The appellate court said the doctors of medicine may testify concerning the standard of skill and care required of doctors of osteopathy "if the methods, training and dangers incident to the operation in question are common to both schools of medical practice and equally recognized." The testimony of the medical doctors tended to show that recent graduates of medical schools are discouraged from performing uterine suspension operations; that the operation, as performed, was not compatible with future pregnancies; that surgery was not required to correct the condition; and that the operation should not have been performed, particularly after the pregnancy

Continued

* Published in *JISMA*, July, 1961, p. 1070.



Sustained tranquilization without autonomic side reactions

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- ECONOMICAL for the patient—daily cost is only a dime or so more than for barbiturates.

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400 mg. meprobamate (Miltown®) sustained-release capsules

Usual dosage: One capsule at breakfast lasts all day; one capsule with evening meal lasts all night.

Available: *Meprospan-400*, each blue-topped capsule contains 400 mg. Miltown (meprobamate).
Meprospan-200, each yellow-topped capsule contains 200 mg. Miltown (meprobamate). Both potencies in bottles of 30.

WALLACE LABORATORIES / *Cranbury, N. J.*

was discovered. *Welch v. Shaver,* 351 S.W. 2d 588 (Tex., Nov. 6, 1961).

Citation Editor's Note: Although it was doctors of medicine testifying against doctors of osteopathy in this case, the same rule might be applied the other way around.

Physician-Patient Relationship Found in Pre-employment Examination—A job applicant has a right of action against an employer and against a physician who gave him a pre-employment examination, where the applicant claimed that he was denied employment because of an erroneous report that he had reactivated tuberculosis. A trial court in New Jersey reached this conclusion in denying motions of the employer and the physician for summary judgments.

The applicant was sent by the employer to a company physician, who referred him to another physician for an x-ray examination. The second physician erroneously reported that the applicant had reactivated tuberculosis. The applicant claimed that the negligence of the second physician caused the employer to deny him employment and forced him to incur expenses to prove that he was in good health.

The second physician argued that there was no liability because there was no physician-patient relationship. The court, however, ruled that, despite the absence of an express contract, a physician-patient relationship is implied in these circumstances, with the result that the physician owes a duty to the examinee to exercise reasonable care in the examination and diagnosis he was called upon to make. The court also noted that the physician who made the x-ray examination acknowledged the status of the examinee as his patient by stating in a letter to the referring physician, "Thank you for this opportunity to examine your patient." The court said that if the applicant was the patient of the referring physician, he was also the patient of the examining physician.

The applicant's claims were sufficient to permit a finding that the examining physician was an agent of the employer, the court said. It also held that, if the agency relationship were established, the employer might be liable for damages resulting from the physician's negligence. *Beadling v. Sirotta,* 176 A. 2d 546 (N.J., Dec. 4, 1961)

Citation Editor's Note: A number of courts have held that there is no physician-patient relationship where a person is examined for the benefit of another in relation to employment, insurance, or litigation, and where no treatment is undertaken. ◄

IMPORTANT—STATE REGISTRATION FEE CHANGED

A 1961 law was passed whereby the professional licensing boards are required to pay their annual registration every two years instead of each year.

July 1, 1962, it will be necessary to remit the fee for two years instead of for one.

Indiana State Board of Medical Registration and Examination



"What do you have that will cheer up a perforated ulcer?"



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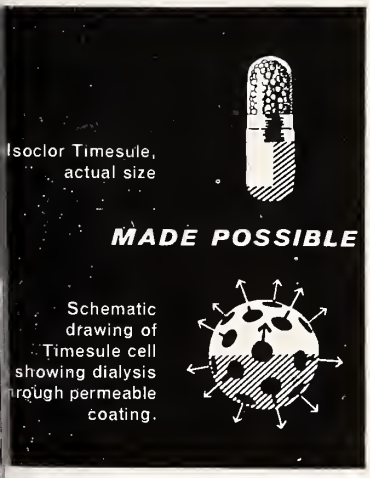
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Isoclor Timesule, actual size

Schematic drawing of Timesule cell showing dialysis through permeable coating.

MADE POSSIBLE BY THE NEW TIMESULE RELEASE MECHANISM

Release with the Isoclor Timesule is at a relatively even, constant rate, independent of gastrointestinal motility, pH, or enzymatic activity. Each Timesule pellet is actually a micro dialysis cell, consisting of a drug core with coating of dialyzing membrane of precisely controlled permeability. Approximately 20% of active drugs are released within one hour and 80% in 8 hours. Peaks and valleys of over-release and under-release are minimized for constant, controlled relief with minimum side effects.

EACH ISOCLOR TIMESULE CONTAINS:

Chlorpheniramine maleate . . . . . 10 mg.
d-Isoephedrine HCL . . . . . 65 mg.
In a special form providing prolonged therapeutic effect.

DOSE: Adults: One Timesule every 12 hours, or as directed.

WARNING: Use with caution in patients suffering from hypertension, cardiac disease, hyperthyroidism or diabetes. Patients susceptible to the soporific effect of chlorpheniramine should be warned against driving or operating machinery should drowsiness occur.

ARNAR-STONE LABORATORIES, INC.,
Mount Prospect, Illinois,

Second Annual Blue Shield Seminar

(One of a series prepared by Blue Cross—Blue Shield)

Blue Shield believes that two-way communication between Indiana doctors and Blue Shield is in the best interests of everyone concerned—our members, doctors, and Blue Shield.

For the past two years our physician relations director has concentrated upon a series of meetings with hospital medical staffs, to keep these doctors informed about new benefits, operating problems, and other information of mutual interest. Two seminars have been held during the past two years to point up this exchange of information.

The second annual Blue Shield Seminar with 298 in attendance was held April 7-8 at the Columbia Club, Indianapolis. It was a repeat of a most successful conference held a year ago, and the questions asked and comments made indicated that the program was enthusiastically received.

A review of the attendance records of the seminar indicates there were 112 hospital delegates present representing 79 hospitals, 76 delegates representing 16 medical specialties, and 79 general practitioners. The hospital delegates were appointed by the staff in each hospital, and the other delegates by the medical specialty groups.

The seminar was held in an effort to further cooperation and understanding between Indiana physicians and Blue Shield. Guest speakers represented many different viewpoints, including management, labor, the medical profession, and Blue Shield.

Speakers on the Saturday evening program included William Breher, Supervisor Employee Benefits, Ford Motor Company, who emphasized that one of the great contributions Blue Cross-Blue Shield can make is to provide uniform coverage, broadly based in the community. He also said that he was reasonably well assured of the ability of Indiana Blue Shield to deliver benefits which preclude the payment by Ford employees of substantial out-of-pocket expenses for covered medical care.

Martin Cohen of the UAW-CIO Social Security Department stressed that members of his organization wanted the broadest possible protection, that their relationship with Blue Cross-Blue Shield was a friendly one, but they wanted the broad protection no matter who it was furnished by.

George W. Slagle, M.D., of the Michigan Medical Service Board of Directors, spoke about what the doctor expects from Blue Shield.

The following day, W. L. Portteus, M.D., now President of Indiana Blue Shield, spoke on "Blue Shield Today". Blue Cross Executive Director Guy W. Spring spoke on "The Reconfirmation Program", and R. B. Rust, M.D., Chairman of the Bed Utilization Committee of Indianapolis Community Hospital touched on "Hospital Bed Utilization Committees".

Next, Enrollment Director Lloyd J. Banks discussed the types of Blue Cross-Blue Shield protection now available to doctors, and was followed by R. C. Kilborn, Blue Shield Assistant Executive Vice President, speaking on "Trends In New Blue Shield Benefit Patterns". L. E. Converse, Blue Shield Physician Relations Director, spoke on "Latest Benefit Codes and New Benefits."

Completely revised Blue Cross-Blue Shield benefit books were distributed to the doctors in attendance. These books include a description of all Blue Cross and Blue Shield benefits, as well as a benefit code section designed to describe the specific benefits a doctor's patients may have.

It is felt that the information disseminated at this seminar, plus the up-to-date benefit books, will assist these doctor delegates in performing their liaison service

Continued

ENDOCRINE AND PHARMACEUTICAL PRODUCTS OF QUALITY

Organon

An important announcement to physicians who prescribe corticosteroids

Organon's new technical process now makes one of the newer, most highly potent and well tolerated corticosteroids available at greatly reduced cost to your patients with allergic, arthritic or other inflammatory conditions.

This new product is being marketed under the trade name of HEXADROL, brand of dexamethasone 'Organon'. HEXADROL is now being offered to your pharmacist at a price which should make it available to your patients at a cost well within the price range of older generically prescribed corticosteroids. It is supplied as 0.75 mg. white scored tablets, in bottles of 100.

If you have been prescribing the older corticosteroids— such as prednisone, prednisolone, hydrocortisone or cortisone, and have hesitated to prescribe the newer corticosteroids because of economic consideration for your patients, you can now secure all of the clinical advantages of dexamethasone at approximately the same prescription expense. Mg. for mg., HEXADROL is approximately 6 times more potent than triamcinolone or methylprednisolone... 8 times more potent than prednisone or prednisolone... 28 times more potent than hydrocortisone... and 35 times more potent than cortisone.

If you are now prescribing the newer corticosteroids— such as triamcinolone, betamethasone, paramethasone or another brand of dexamethasone, because of reduced risk of sodium and fluid retention, potassium depletion, or disturbance of glucose metabolism – you can obtain all of these benefits with HEXADROL, at marked savings – yet with complete assurance of unsurpassed quality and therapeutic effect.

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HOOSIERS AT THE AMA

The annual meeting of the AMA last month in Chicago found many members of ISMA busy in the scientific and administrative activities of the best and largest session ever held. In addition to Indiana's regular slate of delegates and alternate delegates, two members served in the House of Delegates as representatives of clinical sections: Dr. Lester Bibler for the Section on General Practice and Dr. Lall Montgomery for the Section on Pathology and Physiology. Dr. R. L. Sensenich is a member of the House in his capacity of past-president of the AMA.

Dr. Harold C. Ochsner served as Chairman of the Reference Committee on Medical Education and Hospitals. Dr. Lester Bibler was a member of the Committee on Medical Military Affairs, and Dr. Eli S. Jones was one of the Sergeants at Arms for the House.

Dr. John B. Hickam is a member of the Council on Scientific Assembly and presided at the Monday session of the General Scientific Meetings. This was a joint meeting of several sections and the College of Chest Physicians to discuss "Inhalation Therapy".

Dr. Hickam also moderated a general scientific meeting on "Anesthesia including Hypothermia and Muscle Relaxants", and participated in a round table luncheon discussion on thoracic emergencies.

Dr. George Weber participated in a panel discussion of a group of papers on malignancy presented during the General Scientific Meetings. Dr. Watts R. Webb read a paper on a new mucolytic agent before a general scientific session on respiratory diseases and cerebral blood flow.

Dr. Kenneth L. Craft conducted an instruction course on "Allergy and Its Relation to Otolaryngology".

Dr. Janet C. Weber and Dr. Fred M. Wilson presented a paper before the Association for Research in Ophthalmology on the subject of biochemical studies of subretinal fluid.

Dr. Harris Shumacker served on the Executive Committee of the Section on Geneneral Surgery, and Dr. Myron Nourse was the Secretary of the Section on Urology.

Drs. Mertz, Wishard, Nourse and Mertz discussed "Injury of Kidney in Children" before the Section on Urology.

Continued



Emotional control regained...a family restored... thanks to a doctor and 'Thorazine'

During the past seven years, 'Thorazine' has become the treatment of choice for moderate to severe mental and emotional disturbances because it is:

- specific enough to relieve underlying fear and apprehension
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Experience in over 14,000,000 Americans confirms the fact that, in most patients, the potential benefits of 'Thorazine' far outweigh its possible undesirable effects.

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A fundamental drug
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Posed by professional models.

For prescribing information, please see PDR or SK&F literature.

Alcoholism Research Grants Continued By the Licensed Beverage Industries

Licensed Beverage Industries has announced continuation of their program of grants-in-aid for research on alcoholism and related subjects. The purpose is to gather scientific information both as to the extent of alcoholism and as to its causes and treatment. Grants will be awarded to qualified researchers in the biological and behavioral sciences who wish to make preliminary or pilot studies. Information and application forms may be obtained by writing the Scientific Advisory Council, Licensed Beverage Industries, 155 E. 44th St., New York 17.

"Bibliography of Medical Reviews" Now Available to Physicians

The National Library of Medicine announces the publication of the "Bibliography of Medical Reviews," Volume 6, 1955-1961. This volume supersedes the annual volumes for the first five years of this period. It may be obtained at $3.50 per copy from the Superintendent of Documents, Washington 25, D. C.

OVER 80 YEARS' SPECIALIZED EXPERIENCE IN THE RESTORATIVE TREATMENT OF

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- the most modern, coordinated, comprehensive, rehabilitative regimen
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Member American Hospital Association, Member Illinois Hospital Association. Licensed by the Department of Public Health, State of Illinois.

I. U. School of Medicine Wins Two Awards from Lakeside Labs

Lakeside Award winners for outstanding scientific exhibits at the annual convention of the Student American Medical Association in Washington, D. C. recently have been announced. Indiana University School of Medicine took two awards. David E. Copher received a third place award of $100 for his exhibit on "Comparative Study of FRC Measurements In Emphysema". Stephen R. Stouder gained an Honorable Mention certificate for his exhibit on "An Evaluation of the Urinary Amylase Test". The awards are given each year by Lakeside Laboratories to stimulate interest in the use of scientific exhibits and to communicate important information.

NEW OFFICERS INSTALLED AT MEDICAL ASSISTANT'S CONVENTION

Newly-elected officers of the Indiana State Association of Medical Assistants, installed at the group's sixth annual state convention at Evansville, are Mrs. Irene B. Wells, Evansville, president; Mrs. Caroline Appleby, Richmond, president-elect; Mrs. Dorothy Morgan, Logansport, recording secretary; Mrs. Geneva Bickel, Evansville, corresponding secretary and Mrs. Edith Clauson, South Bend, treasurer.

Next year's convention will be held in April in Indianapolis.

Dr. Kenneth L. Craft, Indianapolis, attended the recent meeting of the Southwest Forum on Allergy at Memphis, Tenn. He gave a talk on "Nasal Allergy", and also served as moderator of a panel discussion on "Otolaryngologic Allergy".

Elkhart Pediatrician Honored

Dr. C. Richard Yoder, Elkhart pediatrician, has been named winner of the Community Service Award given each year to an outstanding county citizen by the Family Counseling Service of Elkhart County. The award, presented May 10, is inscribed "For loyal support and outstanding leadership in improving civic life in Elkhart County and in broadening its program of social services." ◄

FUTURE MEETINGS, SEMINARS, COURSES

Laryngology, Bronchoesophagology Course Offered Sept. 24 to Oct. 6

The Department of Otolaryngology, University of Illinois College of Medicine, will conduct a postgraduate course in Laryngology and Bronchoesophagology from September 24 through October 6, under the direction of Paul H. Holinger, M.D.

Registration will be limited to 15 physicians who will receive instruction by means of animal demonstrations and practice in bronchoscopy and esophagoscopy, diagnostic and surgical clinics, as well as didactic lectures.

Interested registrants write directly to the Department of Otolaryngology, University of Illinois College of Medicine, 1853 West Polk St., Chicago 12, Ill.

Annual Postgraduate Course in Gastroenterology Offered

Gastroenterology will be thoroughly reviewed in the Annual Postgraduate Course of the American College of Gastroenterology at the Morrison Hotel in Chicago November 1, 2 and 3. Drs. Owen Wangensteen and I. Snapper will be in charge of the course after an absence of three years. The subject matter will include both medical and surgical aspects, and a clinical session will be held at Cook County Hospital. Further information may be obtained by writing the College at 33 W. 60th St., New York, 23.

American Rhinologic Society Meeting to be Held in Los Angeles, Nov. 1-2

The eighth annual meeting of the American Rhinologic Society will be held in the Statler Hilton Hotel in Los Angeles, November 1-2. A scientific program covering new developments in nasal surgery will be presented on the second day.

The meeting will be preceded by a three day course in "Expanded Surgery of the Nasal Septum" to be presented at the Loma Linda University in cooperation with the American Rhinologic Society.

For further information, write to the American Rhinologic Society, 530 Hawthorne Place, Chicago 13, Ill. ◄

"We cannot expect Americans to jump from capitalism to communism, but we can assist their elected leaders in giving Americans small doses of socialism until they suddenly awake to find they have communism."

—Nikita Khrushchev

Anybody for more social security??

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to Home Lawn Mineral Springs for a few days' health vacation —the mineral baths and excellent meals in an atmosphere of serenity will leave your cares behind, and play golf on a beautiful course.

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Medical Director

J. W. Gibbs, M.D.
Associate Medical Director

Deaths

Medicine Loses Enthusiastic, Loyal Colleague In Passing of Dr. J. Preston Vye, ISMA Councilor

The Indiana State Medical Association and Lake County Medical Society lost one of their most active officers and distinguished colleagues with the death of Dr. J. Preston Vye March 14. He was 61.

Dr. Vye was appointed to the Legislative Committee in 1959 and has been a councilor of the ISMA since 1955. He also served on the Constitution and By-Laws Committee.

He had been a faithful attender of meetings of the Council and the Lake County Society, and represented the 10th District as Councilor at the March 11 meeting of the ISMA in Indianapolis, a few days before his death.

Dr. Vye, a physician and resident of Gary for 34 years, was graduated from the University of Manitoba at Winnipeg, Canada, in 1926. The same year he practiced in North Dakota and in Canada and in 1927 spent time in practice in Kentucky. He joined the staffs of Mercy and Methodist Hospitals in Gary in 1928 and had remained in practice there since that time.

Over the years, he held many offices in the medical society and on hospital staffs. Dr. Vye is survived by two sons, one a physician at St. Lukes Hospital in Denver and the other a student at St. Xavier University in Cincinnati.

Carl Boardman, M.D.

Dr. Carl Boardman, 83, a Gary physician since 1908, died May 16 at his home.

Dr. Boardman received his medical degree from the University of Pennsylvania in 1904. He practiced in Gary for 47 years as an ear, eye, nose and throat specialist until he retired in 1955. He was opthalmologist for U. S. Steel Company and on the staffs of Gary Methodist and Mercy Hospitals for many years.

W. Leland Dorman, M.D.

Dr. W. Leland Dorman, a staff member of Community, St. Francis and Methodist Hospitals, died May 1 in Community Hospital.

Dr. Dorman, 61, was born in Lebanon but had lived in Indianapolis for 50 years. He was a graduate of the Indiana University School of Medicine and had been an Irvington physician since 1932.

Troy Earhart, M.D.

Dr. Troy Earhart, former member of the ISMA, passed away in early April at Mulberry, Ind.

Dr. Earhart had lived in Mulberry since his retirement from the Panama Canal. He was 80 years old. Dr. Earhart went to the Isthmus in 1906 and was chief surgeon at Gorgas Hospital there when he retired in 1941. He was promoted to that post in 1915, when he was 34 years old.

William A. Johnson, M.D.

Dr. W. A. Johnson, 78, physician in Fountain and Vermillion counties, passed away May 12 at his home in Perrysville.

Dr. Johnson was a Senior Member of ISMA and a member of the 50-Year-Club. He was graduated from Loyola University in Chicago, had served on the board of directors for the Indiana Mason's Home and also was a member of the medical staffs at both Danville, Ill. hospitals.

Arthur J. Steffan, M.D.

Dr. A. J. Steffan, Wabash, died April 14.

Dr. Steffan was a 1931 graduate of Indiana University School of Medicine and served his internship at St. Joseph Hospital, Ft. Wayne. He was a general practitioner and was on the staff of Wabash County Hospital.

Charles Wyeth, M.D.

Dr. Charles Wyeth, 93, oldest member of the Vigo County Medical Society, passed away May 6. He was Terre Haute's oldest physician.

Dr. Wyeth retired 18 years ago. He was graduated from Rush Medical School in Chicago and Jefferson School of Medicine in Philadelphia. He opened his practice in Terre Haute in 1893, specializing for many years in x-ray technology. He was a member of the ISMA 50-Year-Club. ◄

County, District News

Fourth District

Newly installed officers of the Fourth District Medical Society, elected at a May 16 meeting, are Drs. Leslie M. Baker, Aurora, president; Charles Overpeck, Greensburg, vice president; George G. Morrison Jr., Lawrenceburg, secretary-treasurer. Dr. Joseph M. Black, Seymour, was re-elected councilor.

Fifth District

Dr. Cleon M. Schauwecker was elected president of the Fifth District Medical Society at Terre Haute, May 16. Other newly elected officers include Drs. Dick J. Steele, vice president and Anne S. Nichols, secretary-treasurer. All three officers are from Greencastle and the 1963 meeting of the Society will be held there.

Sixth District

Members of the Sixth District Medical Society, at their May 10 meeting in Connersville, elected Drs. Davis W. Ellis, Rushville, president; Perry F. Seal, Brookville, vice president; Charles H. Loomis, Richmond, secretary-treasurer; and W. U. Kennedy, New Castle, Blue Shield Board member. The 1963 meeting will be May 16 in Richmond.

Tenth District

The spring meeting of the Tenth District Medical Society was held May 9 at Valparaiso. Dr. Ralph Eades, Valparaiso, has replaced the late Dr. J. Preston Vye as Tenth District Councilor.

Twelfth District

Dr. Donald G. Mason, Angola, was elected president of the Twelfth District Medical Society at their May 16 meeting. Dr. E. E. Rogers, Auburn, was elected vice president and Dr. Marvin E. Priddy, Fort Wayne, was chosen secretary-treasurer. Dr. William Clark, Fort Wayne, was elected alternate councilor. The society's 1963 meeting will be held May 22 at Fort Wayne.

Allen

Dr. Chester H. Warfield has been elected president of the Allen County Medical Society. Other officers chosen at the May 1 meeting were Drs. Francis L. Land, president elect; C. M. A. Frankhouser, secretary and Donald M. Hickman, treasurer. Delegates to the state convention will be Drs. Franklin A. Bryan, Emory D. Hamilton, Frederic L. Schoen, Eugene F. Senseny and Robert E. Sullivan. Dr. Eugene C. Klatte spoke on "Present Day Use of X-ray Movies" at the meeting. There were 65 members present.

Cass

Dr. Robert Rhamy discussed "Urinary Tract Infections" before 18 members of the Cass County Medical Society meeting May 7.

Clark

A discussion of the oral polio vaccine program and clinics to be started in October highlighted the May 15 meeting of the Clark County Medical Society. There were 28 members present.

Jackson-Jennings

Eighteen members of the Jackson-Jennings County Medical Society met May 18 in Seymour. The members voted to place

ads in the Brownstown, Seymour and North Vernon papers telling of medicine's stand on the King-Anderson Bill.

Jefferson-Switzerland

"Laboratory Tests in the Newborn" was the topic of a talk by Dr. Merritt O. Alcorn before the Jefferson-Switzerland County Medical Society meeting May 8. There were 20 members present.

Lake

The Lake County Medical Society met May 9 at Valparaiso in conjunction with the Tenth District and the Indiana Academy of General Practice. Dr. Stanford Sweany spoke on "Fungus Diseases of the Chest" and "Pediatric Problems Seen By the Family Doctor." Dr. Joseph Coleman discussed "Ulcers in Children" and "Practices Applying to Pulmonary Function—Emphysema". There were 100 members and guests present.

Montgomery

Mr. Paul D. Hill discussed the King-Anderson Bill before 200 members and guests present at the May 17 public meeting of the Montgomery County Medical Society.

Heid's P.F.A. approved prescription Foot Applicator

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Indianapolis

Owen-Monroe

The Owen-Monroe County Medical Society met May 31 in Bloomington to hear William R. Breneman, Ph.D., professor of Zoology at Indiana University, speak on "The Student-Professor Syndrome." There were 28 members and 30 guests present.

Randolph

Dr. T. R. Hayes discussed "Urinary Tract Infections" with the 14 members of the Randolph County Medical Society April 9.

Starke

Dr. James F. DeNaut, Knox, has been elected president of the Starke County Medical Society. Other newly elected officers include Drs. Howard Henry, vice president; Earl R. Leinbach, secretary-treasurer and Guy B. Ingwell, delegate.

Steuben

The Steuben County Medical Society met May 7 at Angola. There were eight members present. A discussion was held on the Civil Defense program.

Vanderburgh

Vanderburgh County Medical Society has elected Dr. Joseph McDonald, Evansville, president for the coming year. Other officers elected are Drs. A. W. Radcliffe, president-elect and John Stern, treasurer.

Wayne-Union

Mr. Fred Fragner, administrative director of the Wayne County Child Guidance Clinic, spoke before the 44 members present at the May 8 meeting of the Wayne-Union County Medical Society. His topic was "The Difference Between Functions of the Child Guidance Clinic and The Family Guidance Clinic." ◄

Report of the Retiring President, Woman's Auxiliary to ISMA

The forewarning that this was to be the "year of the letterwriting" might have been recognized by the 2,768 members of the Indiana Auxiliary back in August of 1961. At that time each county chairman in every one of the 60 auxiliaries received a personal get acquainted letter from her state level chairman mentioning the benefits to be derived by all concerned if she would attend the area workshops in the fall. At the same time each county president received a letter from the state president, and another from the area vice-president, asking her help in "getting them in the tent." Reminder notes were sent out early in September.

In the evenings after the first two meetings, which were held on consecutive days, all officers and chairmen who were traveling together sat around a table in the hotel and wrote to those county officers who were not present that day. It was suggested that they try to come to one of the other area meetings to be held the next week. Consequently, many decided that perhaps they were missing something and made the effort to attend outside their own areas.

These meetings were electrically charged with interest. The chairmen had thoroughly prepared their excellent presentations. Many members who had never before attended an area workshop said that for the first time all the loose ends were pulled together for them and they recognized their own county auxiliary's relation to state and national. Each saw herself in a new light, as an essential cog in the apparatus.

This close communication continued through the year, and the record testifies to the results. AMEF contributions rose to an average of approximately $5.50 per member. Bulletin sales doubled. Almost $12,000 was raised for Health Careers scholarships and loans. Nearly all auxiliaries participated in Mental Health projects and 75% had programs on civil defense. A growth of interest was manifest in Rural Health and Safety, and a new realization of the importance of individual participation in Community Health projects was evident.

The Indiana Auxiliary can be pardonably proud of the *Hoosier Doctor's Wife*, for it is an outstanding publication. A new county newsletter, *The La Porte Helpmate*, was born this year. Indiana has two other monthly newsletters, the *Vanderburgh Vein* and the *Elkhart Pulse*, all as eagerly perused by the doctors as by their wives.

Legislation the Target

The primary emphasis of this year was necessarily on legislation. Indiana was picked as the pilot state for the WHAM campaign. The groundwork had been laid by universal membership participation in Operation Coffee Cup. A month after the WHAM meeting, the state president was asked to report on the progress of the campaign at the AMA's National Legislative Conference. An appeal to the counties for information elicited a 96% response, and the number and variety of procedures in the counties far exceeded the hopes of anyone connected with the campaign. The report so emphatically underscored the potential of women in this fight for sensible financing of medical aid to the aged, that the men who heard it re-acted by spreading the fame of the Indiana Auxiliary's legislative accomplishments all over the country.

By all odds, the most outstanding county project was LaPorte county's two-day Health Careers Exhibit; 5500 students attended, and 750 signed cards indicating Health Career preferences. Total community attendance was 20,000. Cooperating were all community health agencies, several universities, hospitals, drug companies, hundreds of volunteer workers, and doctor's

who closed their offices and demonstrated mock operations and other technics for the students. This gigantic project had a predecessor in one put on by a southern Indiana county two years ago. Dr. Robert Reed, who spear-headed the one in Bartholomew-Brown, journeyed north to help the La Porte Auxiliary lay its plans.

The moral support of the Indiana State Medical Association was evidenced by their growing appreciation of the work of the Auxiliary. Their financial support continued as usual; and it was refreshing to be able to reverse that situation for once in the history of the Auxiliary. In addition to raising $58 for the ISMA's Medical Student Loan Fund, the Auxiliary contributed $1,090 toward the furnishing of the Auxiliary room of the new ISMA building.

The House of Delegates in April was memorable for a number of reasons. Who will forget the pot-bellied stove in the Hoosier County Store? Here items brought in by the counties were sold for the benefit of favorite projects. The speeches of Mrs. William Evans, National representative, and of Dr. Margaret Dishon of the AMA's Speakers Bureau made a lasting impression. And who will forget the fun of seeing not one but TWO original musicals! In "Be Prepared," the glamorous gals of Allen county depicted hilariously the exigencies of the life of a doctor's wife. "When I Was President" was a comical spoof on the Auxiliary itself. ◄

Mrs. Burton Kintner, Past President
Women's Auxiliary to the Indiana
State Medical Association

A Crack In The Socialist Illusion

The training for medicine is one of the longest and most arduous of any career. To go through it a young man must be moved by many motives. But those would surely include a desire to make a good living, to enter a profession where he could be his own master and not a hired employee, to have the self-satisfaction of being respected by his community as "the doctor" has ever been. And not the least of the motives is a desire to give to the sick person who comes to him the best care he can provide.

British socialized medicine has taken away every one of those motives, without exception. — Reprinted from *The Wall Street Journal*, Apr. 16, 1962.

Association News

EXECUTIVE COMMITTEE

June 2, 1962

Present: Don E. Wood, M.D., chairman; Wendell E. Covalt, M.D.; Harry R. Stimson, M.D.; Maurice E. Glock, M.D.; John M. Paris, M.D.; Irvin W. Wilkens, M.D.; Charles F. Gillespie, M.D.

Frank B. Ramsey, M.D., editor of *The Journal;* James A. Waggener, executive secretary.

AMA delegates: E. S. Jones, M.D.; Walter L. Portteus, M.D.; Jack E. Shields, M.D.; Lester D. Bibler, M.D., delegate, AMA Section on General Practice; Lall G. Montgomery, M.D., delegate, AMA Section on Pathology; Ralph V. Everly, M.D., chairman, Building Committee.

Membership Report

Number of members as of Dec. 31, 1961	4,338
1962 members as of May 31, 1962:	
Full dues paying	3,666
Residents and interns	158
Council remitted	38
Senior	366
Honorary	3
Military	43
Total 1962 members as of May 31, 1962	4,274
Number of members as of May 31, 1961	4,274
Gain over last year	00

Number of AMA members as of May 31, 1962	4,148
Total 1961 AMA members as of May 31, 1961	4,150
Loss over last year	2
1962 AMA members: Dues paying	3,537
Exempt, but active	611
	4,148
Number who have paid state dues but not AMA dues for 1962	126

Building Matters

Dr. Everly, chairman of the Building Committee, stated the report he had to make dealt with a tour of the building and at this time the Committee recessed and Dr. Everly personally conducted them throughout the building and explained its usage.

Dedication Program

The hour of 2:00 p.m., Sunday, July 15, was officially set as the time for dedication of the building.

It was decided that a platform should be erected. The president, president-elect, chairman of the Council, chairman of the Executive Committee, the treasurer, the president of the Woman's Auxiliary, three ministers, the speaker, and the entire Building Committee would occupy the platform, the ministers to be invited to include the Bishop of the Methodist Church, the Archbishop of the Indianapolis Roman Catholic Diocese, and a Rabbi.

As planned, seating will be provided in the parking area and following the ribbon cutting ceremony the building will be thrown open for inspection.

The headquarters office staff is to be on hand to help explain the various rooms of the building.

A formal type invitation is to be sent to all members of the Association, the Indiana Congressmen, allied health organizations, and suppliers, and no publicity is to be given inviting the general public to the dedication.

The details of this event are to be left to Dr. Wood as chairman of the Executive Committee, Dr. Stimson, president, and the executive secretary.

Dedicatory plaques. Following discussion of this item, upon motion of Dr. Wilkens, taken by consent, the Committee was authorized to purchase dedicatory plaques as is customary. One plaque is to carry the names of the present officers only, and the other plaque is to contain the wording of Article II of the Constitution of the State Medical Association, with some deletions, and with suitable heading, as follows:

> "The purposes of this Association shall be to federate and bring into one compact organization the medical profession of the State of Indiana; to extend medical knowledge and advance medical science; to elevate the standard of medical education; to promote friendly intercourse among physicians; to enlighten and direct public opinion in regard to the great problems of medical care, and public health, so that the profession shall become more capable and honorable within itself and more useful to the public in the prevention and cure of disease and in prolonging and adding comfort to life."

Discussion was then held regarding a method of recognizing the efforts of the past presidents and members of the three previous building committees. Upon motion of Drs. Stimson and Wilkens, the Committee suggested that the Executive Committee meet at 12 noon on Saturday, July 14 and that a reception be held at approximately 3:30 p.m. The past presidents and their wives, the members of the various building committees and their wives, the councilors and alternate councilors and their wives, the AMA delegates and alternate delegates and their wives, the architects, building contractors, Dr. A. C. Offutt, Dr. John D. VanNuys, and their wives, and the officers of the Woman's Auxiliary and their husbands, are to be invited to attend the reception. At this time special recognition will be accorded the members of the past building committees and the past presidents. The reception will follow a preview tour of the building.

The Council is to be requested to meet at approximately 5:00 p.m. and to adjourn in time that the members of the Council may join their wives for dinner in a restaurant of their choice.

The Executive Committee is to be informed that no food will be served at their meeting at noon. They should eat before they arrive.

Annual Convention, French Lick, October 8-10, 1962

Guest list for the speakers' table, as outlined on the agenda, was noted and approved on motion of Drs. Stimson and Covalt.

Dr. Stimson remarked about the handling of guest presidents from adjoining states, and by consent it was agreed that he would personally assign a physician member of the Association to each visiting president to act as host during the period of the convention.

Upon motion of Dr. Wilkens, accepted by acclamation, Dr. Raymond C. Beeler of Indianapolis is to be asked to make the response on behalf of the Fifty-Year Club at the annual dinner.

Dr. Stimson announced that he proposed to distribute the plaques and pins to the Fifty-Year Club members at the annual dinner, rather than sending them out in advance of the meeting, as has been done in the past.

Headquarters Office

The secretary was instructed to obtain prices on tables and chairs to be used in the basement for feeding of committee members, and report on this is to be made at the meeting in Chicago.

Treasurer's Office

The treasurer reported on income and expenses for April, 1962, cash balances and report on investments. His report was accepted on motion of Drs. Paris and Stimson.

Legislative Matters

The chairman of the Commission on Legislation reported on the activity regarding HR 4222.

AMA Matters

1. *Resolutions to be Introduced by Indiana:*

Dr. Lall G. Montgomery discussed his opinion that Indiana should re-introduce the resolution which it proposed in 1954, entitled "Essentials of an Approved Internship."

Dr. Glock pointed out the fact that the resolution introduced by Indiana at the Dallas meeting in 1959, calling for the appointment of a committee of practicing physicians of the AMA House of Delegates to study this whole program had not been implemented.

On motion of Drs. Glock and Paris these two resolutions were ordered to be introduced by the Indiana delegation. Copies of the resolutions are to be sent to each state medical society and to each delegate to the American Medical Association meeting.

Dr. Montgomery is to suggest some additional wording on the resolution on the Essentials of an Approved Internship.

a. *Resolution which the Missouri State Medical Association* proposes to introduce at the AMA meeting in Chicago, calling for a division in the Council on Medical Education and Hospitals was read, and upon motion of Drs. Glock and Covalt the Indiana delegation is to be requested to support this resolution.

b. *Resolution from the Arizona Medical Association* entitled, "American Medical Association Representative of Practicing Physicians of this Country," was read and upon motion of Drs. Glock and Paris the delegates to the AMA were to be instructed to support this resolution.

c. *Resolution from the Santa Barbara County Medical Society* (Calif.) was read. Upon motion of Drs. Stimson and Covalt this resolution is to be given further study.

d. *Resolution adopted by the Louisiana State Medical Society* was read and upon motion of Drs. Paris and Stimson this resolution is to be the subject of further study.

Openings on the various councils of the AMA which are to be filled at the Chicago meeting were reviewed and upon motion of Drs. Stimson and Covalt it was agreed that the Association should formally nominate Dr. Francis Land of Fort Wayne on the Council on Medical Education and Hospitals, and that Dr. Guy Argyle Owsley of Hartford City be nominated for membership on the Council on Medical Services.

2. *Headquarters Room.* The president announced that the headquarters room would be in the Palmer House and its use would be shared by the Indiana Alumni Association. He urged all of the delegates to invite their friends to use the room between the hours of 4 to 8 p.m. daily.

By acclamation it was agreed that the officers of the Association and the delegates to the American Medical Association would meet in the Indiana room for a breakfast meeting at 7:30 a.m., Monday, June 25.

3. *Organization of the Delegation.* Upon motion of Drs. Glock and Covalt, the president, Dr. H. R. Stimson, is to head the Indiana delegation.

On motion of Drs. Paris and Covalt, Dr. E. S. Jones is to be the floor leader for the Indiana delegation.

Dr. Bibler discussed the matter regarding the American College of Surgeons. No action was taken.

Organization Matters

1. *AMA National Congress on Mental Health.* The secretary read the reply from the American Medical Association, pointing out that the Board of Trustees had authorized the Council on Mental Health to conduct a National Congress on Mental Health in October 1962, at which time members of various organizations will be invited to participate

in implementing the policies which are adopted by the AMA.

2. *American Cancer Society.* By consent the postal card ballot on the adoption of the resolution presented by the Commission on Voluntary Health Agencies dealing with the American Cancer Society and a letter written by the secretary were approved.

3. *Student Loan.* The secretary reported that the chairman of the Student Loan Committee had discussed with Mr. Funk of the Indiana National Bank the student loan program but their discussion dealt again with the HELP plan and not with the program as recommended by Dr. Frank Green. He also reported that he had asked Mr. Merle Miller of the Indiana National Bank to call Dr. Ritchey and make an appointment for discussion of Dr. Green's proposal.

4. *Conference on Home Care Program.* A letter from Dr. N. L. Salon concerning a Conference on Home Care Planning was read and upon motion of Drs. Stimson and Paris Dr. Salon is to be advised that the Executive Committee approved his proposal.

5. *Insurance Re-examinations.* Letter from Dr. Charles E. Jackson concerning the policy of the Association on insurance re-examinations was read and by consent it was agreed the secretary should write to Dr. Jackson, pointing out that the Association had no formal policy on the question which he raised, but that the Association shared his ideology as expressed in his reply to the insurance company. Dr. Jackson is to be invited to submit a policy statement on this question which he would deem appropriate for consideration by the Association.

6. *Farm-City Workshop.* A letter inviting the Association to have a representative at the Farm-City Workshop was read and no action was taken.

7. *Dry-run accreditation team.* A letter from the Indiana Hospital Association containing further elaboration on their proposal for a "dry-run accreditation team" was read and upon motion of Drs. Paris and Stimson participation in this program by the Association is to be turned down.

The Journal

The question of accepting advertising in *The Journal* on the Eff Tee oxygen device, as well as permitting this company to exhibit at the annual convention, was discussed. The secretary reported that, as instructed, he had submitted this apparatus to Dr. John Hickam and that Dr. Hickam saw no objection to acceptance of advertising on this product, or to accepting their exhibit. Therefore it was taken by consent that the device would be accepted for advertising and exhibit.

Medical Defense

A letter from the St. Joseph County Medical Society was read, together with the reply of the executive secretary. The handling of this matter was approved by consent.

Future Meetings

Michigan's 15th Annual Conference on Aging. Invitation received by Dr. Emmett B. Lamb to this conference was read. This is to be held June 18-20, 1962, at Ann Arbor. It was decided that a representative of the Association would not attend this meeting.

American Medical Association Annual Meeting, Chicago, June 24-29, 1962. It was voted that Mr. Joe Palmer should be requested to attend this meeting.

There being no further business the Committee adjourned to meet again in the Indiana headquarters room, Chicago, at 7:30 a.m., Monday, June 25, 1962.

TREASURER'S REPORT ON INVESTMENT, CASH BALANCES AND OBLIGATED FUNDS

APRIL 30, 1962

INVESTMENTS:		
General Fund Securities amount to	$86,000.00	
Building Fund Securities amount to	71,000.00	
Medical Defense Fund Securities amount to	21,000.00	
Total Investments—All Funds		$178,000.00
CASH BALANCES:		
General Fund	$29,761.05	
Building Fund	1,495.62	
Medical Defense	2,471.49	
Student Loan Fund	201.94	
Journal Fund	266.72	
Total Cash—All Funds		34,196.82
Total Cash & Securities—All Funds		$212,196.82
OBLIGATED FUNDS of the General Fund:		
AMEF	$36,690.00	
Journal Fund	403.24	
Tape Deposits	343.50	
Medicare Escrow	40,000.00	
Medical Defense Fund	7,770.04	
1961 Convention Income (Spendable 1962 Fiscal Year)	25,202.75*	
1962 Dues—General Operation (Remainder of Fiscal Year)	52,311.00	
Money Advanced to Building Fund	(72,437.50)	
Total Obligated Funds	$90,374.03	
General Fund Cash & Securities	115,761.05	
Less Obligated Funds of General Fund	90,374.03	
Unencumbered Balance—General Fund as of April 30, 1962	$25,387.02	

* Income For Year 1961-1962 Annual Meeting $22,845.25
Prepaid Income For Year 1962-1963 Annual Meeting 2,357.50

TREASURER'S REPORT ON JOURNAL FUNDS

Receipts: October 1, 1961-April 30, 1962	$39,842.56
Cash Balance in Bank as of April 30, 1962	266.72
Total Income for period	$44,960.42
Total Expense for period	$45,138.78
Average Monthly Income	$6,422.91
Average Monthly Expense	$6,448.40

INCOME:	1961 Budget	Current Month	Total to date	Balance
Subscriptions—				
Dues	$11,472.00	$ 177.00	$11,196.00	$ 276.00
Subscriptions—				
Non Members	350.00	309.00	527.00	(177.00)
Advertising	50,000.00	4,004.61	30,205.87	19,794.13
Other Income	1,500.00	28.50	730.50	769.50
Sale of Reprints		430.10	2,301.05	(2,301.05)
Total Income	$63,322.00	$4,949.21	$44,960.42	$18,361.58
EXPENSE:				
Salaries	$14,625.00	$1,091.25	$ 7,282.96	$ 7,342.04
Office Expense	500.00	26.56	290.49	209.51
Printing	55,000.00	3,707.67	26,456.76	28,543.24
Reprints		403.32	1,853.36	(1,853.36)
Engravings	5,000.00	553.32	1,754.39	3,245.61
Travel & Meetings	1,800.00	125.00	875.00	925.00
Bulk Mailing	1,100.00	215.71	709.75	390.25
Other Printing Expense	600.00	(342.26)	524.33	75.67
Payroll Taxes	500.00	30.01	212.65	287.35
Employee Group Insurance	140.00		50.49	89.51
Rent & Electricity	2,200.00	182.82	1,269.27	930.73
Telephone & Telegraph	300.00	16.00	120.02	179.98
Dues & Memberships	50.00		4.00	46.00
Prizes	225.00			225.00
Miscellaneous	150.00		(2.97)*	152.97
Cash Discounts Allowed		77.43	482.12	
Comm, Adv. Agencies		32.25	130.20	
Comm. SMJAB		531.19	3,125.96	
				(3,738.28)
Total Expense	$82,190.00	$6,660.27	$45,138.78	$37,051.22
Gain or Loss for for period		(1,711.06)	(178.36)	18,689.64

* Net Miscellaneous Income over Miscellaneous Expense.

THE TREASURER'S REPORT ON THE BUILDING FUND

Receipts and Expenditures thru April 30, 1962

RECEIPTS:		
Securities transferred from General Fund:		
Securities Matured	$ 79,000.00	
Securities on Hand	71,000.00	
		$150,000.00
Loans Prior to 10/1/61		24,650.00
Net Assets as of 9/30/61—Rev. from dues donations, etc.		107,516.40
Total Receipts Prior to 10/1/61		$282,166.40
Receipts from 10/1/61 thru 4/30/62		
Loans	$ 100.00	
Donations	13,526.52	
Dues	18,047.50	
Money advanced from General Fund	72,437.50	
		$104,111.52
Total Receipts thru 4/30/62		$386,277.92
EXPENDITURES:		
Land Expenditures brought forward 9/30/61	$ 65,700.60	
Fees & Service brought forward 9/30/61	14,907.90	
Expenditures thru 9/30/61	$ 80,608.50	
Expenditures since 10/1/61:		
Refunds of Certificates	$ 200.00	
Architects	2,087.06	
Circle Alarm Service	300.00	
Furniture & Fixtures	10,000.00	
Berling—Contractor Amount Certified & Paid	220,586.74	
	$233,173.80	
Total Expenditures to date 4/30/62		313,782.30
Total Cash and Securities on hand 4/30/62		$ 72,495.62
Cash in Bank	$ 1,495.62	
Securities on Hand	71,000.00	
Total Cash & Securities		$ 72,495.62
Contractor's Balance not yet certified 4/30/62	$ 52,088.09	
Architect's Balance not yet certified 4/30/62	1,223.43	

REPORT OF RECEIPTS AND BUDGET BALANCES—GENERAL FUND

Receipts, Oct. 1, 1961, thru April 30, 1962 7 Mos.	$248,751.28
(note $30,000.00 was AMEF 1961)	
Cash in Bank as of April 30, 1962	29,761.05

Committee	1961 Budget	Current Month	Expenses to date	Balance in Accounts
Grievance	$ 500.00		$ 101.78	$ 398.72
Student Loan	100.00	$ 12.00	108.57	(8.57)
Building Fund	1,000.00	33.00	312.02	687.98
Medical & Legal	50.00			50.00
Executive	1,200.00		226.96	973.04
COMMISSIONS:				
Constitution & Bylaws	200.00		138.05	61.95
Inter-Prof. Relations	200.00			200.00
Legislation	6,000.00	749.75	1,646.01	4,353.99
Public Health	1,000.00	246.50	491.35	508.65
Public Information	2,500.00	76.49	1,057.82	1,442.18
Special Activities	500.00		127.50	372.50
Voluntary Health Agencies	900.00		370.50	529.50
Medical Econ. & Insurance	1,000.00	69.00	823.22	176.78
Medical Educ. & Licensure	1,000.00		412.30	587.70
Governmental Med. Serv.	600.00		886.60	(286.60)
Aging	1,000.00	92.00	699.05	300.95
Council Meetings	1,000.00		236.15	763.85
Council Travel	1,000.00	78.00	630.00	370.00
Annual Meeting (memo only)		50.86	18,682.62	
Headquarters Office	98,500.00	7,198.77	49,030.95	49,469.05

THE COUNCIL

April 29, 1962

The Council of the Indiana State Medical Association convened for its spring meeting at 10:00 a. m., Sunday, April 29, 1962, in Room M-124, mezzanine floor, Indiana University Student Union Building, Indianapolis, with Dr. John M. Paris, chairman, presiding.

Roll call showed the following present:

Councilors:

First District—William B. Challman, Mount Vernon (also AMA alternate delegate).
Second District—E. T. Edwards, Vincennes.
Third District—John M. Paris, New Albany (also AMA alternate delegate).
Fourth District—Joe M. Black, Seymour.
Fifth District—V. Earle Wiseman, Greencastle.
Sixth District—William R. Tindall, Shelbyville.
Seventh District—Ralph V. Everly, Indianapolis.
Eighth District—Not represented.
Ninth District—Kenneth O. Neumann, Lafayette. Albert E. Stouder, Kempton, alternate.
Tenth District—Ralph C. Eades, Valparaiso, alternate.
Eleventh District—E. S. Rifner, Van Buren.
Twelfth District—Milton F. Popp, Fort Wayne.
Thirteenth District—Burton E. Kintner, Elkhart. Raymond E. Nelson, South Bend, alternate.

Officers:

Harry R. Stimson, Gary, president.
Maurice E. Glock, Fort Wayne, president-elect.
Charles F. Gillespie, Indianapolis, assistant treasurer.

Journal:

Frank B. Ramsey, Indianapolis, editor.

Executive Committee:

Wendell E. Covalt, Muncie, member.

Guests:

Harold C. Ochsner, Indianapolis, AMA delegate.
Francis Land, Fort Wayne, AMA delegate.
Walter L. Portteus, Franklin, AMA delegate.
Jack E. Shields, Brownstown, AMA delegate.
John D. VanNuys, Indianapolis, dean, I. U. School of Medicine.
A. C. Offutt, Indianapolis, State Health Commissioner.
Robert Yoho, Indianapolis, director, Health Education, Indiana State Board of Health.
Virgil C. McMahan, Vincennes, chairman, Commission on Convention Arrangements.
Glen Ward Lee, Richmond, Commission on Governmental Medical Services.
Lester H. Hoyt, Indianapolis, vice-chairman, Professional Advisory Committee of Blue Cross.
R. S. Saylor, Lloyd Banks, James Herod, Blue Cross-Blue Shield.

Staff:

Ralph Hamill, Indianapolis, attorney.
Robert J. Amick, field secretary.
Howard Grindstaff, field secretary.
J. A. Waggener, executive secretary.
Joe Palmer, administrative assistant.

On motion of Drs. Stimson, Neumann and Rifner, the minutes of the Jan. 14, 1962, meeting of the Council were approved.

The Council stood in silent tribute to Dr. James P. Vye of Gary, councilor of the Tenth District since 1957, who passed away on March 14, 1962. **On motion of Drs. Everly and Stimson a message of condolence is to be sent to the family of Dr. Vye.**

The chairman spoke of the house-to-house canvass made by the physicians in Corydon, to dispense literature and information on the King-Anderson bill. He suggested that the president write a letter to the Harrison county physicians, congratulating them on their efforts and the favorable publicity which this project received.

Reports of Councilors

Dr. Paris reported that the Third District would have a town hall meeting May 9 to discuss the King-Anderson bill.

Dr. Black announced that the Fourth District would hold an open meeting in Columbus on Wednesday night, May 2, for a discussion of the King-Anderson bill. The regular district meeting will be held on May 16. Dr. Black said the Fourth District Constitution and Bylaws specify the second Wednesday in May as the district meeting date but because of Alumni Day their date this year had to be changed. The Fourth District is attempting to move future meetings to the fourth Wednesday in May.

Dr. Wiseman said the Fifth District meeting, scheduled for April 25, had to be changed because it was impossible to get a meeting place for that date. The meeting will be held on May 16 at Terre Haute.

Dr. Everly stated that the Seventh District meeting would be held on May 9 at Danville. This meeting was postponed from April 11 to May 9, on which date the new Hendricks County Hospital is to be completed and the meeting can be held there.

Dr. Neumann announced that the 1963 meeting of the Ninth District would be held on May 15, 1963, at the Country Club at Lebanon, the only date on which the society can get the Country Club. The Constitution and Bylaws of the Ninth District specify that the district meeting shall be held the third week in May.

Dr. Eades announced that the Tenth District meeting would be held at Wellman's in Valparaiso, on Wednesday, May 9.

Dr. Rifner said the Eleventh District would meet at Kokomo on May 16. "A resolution is before the district to cut district meetings to one

a year and this probably will be held in the fall before the state meeting so that members will be better informed when they attend the state meeting."

Dr. Popp reported that the Twelfth District would meet on May 16, with Dr. John VanNuys as speaker.

Dr. Kintner reported that the Thirteenth District meeting would be held on a Wednesday in September, the date depending on when the speaker the Society is planning on having can be there.

The matter of the Council setting district meeting dates was discussed by a number of the councilors, the consensus being that, for several reasons, this would be an impractical policy.

It was suggested that the district meetings be spread over several months other than May. September was suggested as a logical time, inasmuch as discussion of annual convention business immediately prior to the state meeting would enable members to be informed and better prepared to handle the business to come before the House of Delegates.

Reports of Officers

DR. H. R. STIMSON, President: I will make my report short today.

Let me say that I fully agree that this Council should not set the district dates. I do think, however, that with consultation between councilors and district officers, this can be spread out better than it has been. It is a question of whether you want your state officers to attend. It is physically impossible to attend the way it is now. I think I'm going to be able to attend two meetings—three counting Evansville—I was there about three weeks ago and I don't intend to go back down there at this time for the district meeting. Doctor Glock is going to attend a couple of them —five out of 13 isn't a very good record.

You all know about the special House of Delegates meeting and the results have been printed in *The Journal* and I won't go into that.

We discussed in the Executive Committee meeting last night some changes in the treasurer and we've asked Doctor Glock, in his report, to discuss that so I'll leave that.

Don Wood has asked me to tell you why he isn't here today. He was at the Executive Committee meeting last night. There is a dinner in honor of Chairman Mills, chairman of the House Ways and Means Committee, this evening in Washington, and if Don had waited to go with us on the plane this afternoon he would not have arrived in Washington in time. He left very early this morning. I think it was much more important that he attend that meeting than to attend our meeting.

I want to announce to all of you that Thursday night in Elkhart at the banquet of the Woman's Auxiliary of the Indiana State Medical Association, the outgoing President, Mrs. Kintner, handed me a check for $1,000.00 to be used in helping to furnish the lounge of the Auxiliary in the new building.

I think that is all at this time.

DR. CHARLES F. GILLESPIE, assistant treasurer, in the absence of Dr. Irvin W. Wilkens, treasurer, reported as follows: I can announce categorically that we are still in the black. As far as assets are concerned the General Fund contains $75,758.86 in cash.

Accrued interest received $1,456.14 and receivable from other funds; Student Loan Fund $25,000 and Building Fund $30,437.50, for a total receivable $55,449.33.

Investment U. S. obligations at cost, less the amortization: Treasury Bonds $88,536.17; Treasury Notes $64,000.00, and Savings Bonds $5,000.00, less the amortization accumulated for a total of $157,157.98. The total in this category—General Fund $305,665.42.

Journal Fund—the total is $11,707.92.

Medical Defense Fund, which includes certain U. S. Treasury Bonds and Savings Bonds, the total is $31,581.31.

Accumulated total on the first page of the report is $348,954.65.

The second page of this same report—the Student Loan Fund $1,096.94 cash, with notes receivable $39,228.78, for a total of $40,825.72.

Building Fund—cash on hand is $337.31.

Land value—$65,700.60.

Construction in process—valued at $260,020.74.

Total value in the Building Fund is $272,058.65.

The other fund reportable is Medicare Fund with cash $277.00—recoverable payments to doctors is $25,971.75 and receivable from the U. S. Government on claims $18,751.35 for a total of $45,000.00.

The total assets evaluation is $706,839.02.

There are certain notes at the end of this. General Fund Investments and U. S. Treasury Certificates aggregating $71,000.00 have been allocated to the Building Fund, as the contractual liability amounts to $276,000.00 for completion of the building under construction.

Three—General Fund and U. S. Treasury Bonds and Notes in the principal amounting to $40,000.00 are held in escrow by the U. S. Government to secure funds advanced for the Medicare program.

At the Executive Committee meeting last evening there was a motion passed requesting that the bank notify the society in regard to the current value of certain bonds—those due in 1962, 1963 and 1964. The request is that the bank notify the society so that when these bonds reach par value or greater they may be cashed.

DR. FRANK B. RAMSEY, editor of *The Journal:* The Treasurer's report on *The Journal* funds covers the first six months of the fiscal year. We are to the good by $1500—over the first six months—this is due, as you will notice on the report, to the fact that a big item of income (advertising) has exceeded 50% of what we thought for the an-

nual budget and a big item of expense (printing) is below 50% of what we thought it would be for the year. This is not quite as good as it sounds because we still must publish the two big numbers of *The Journal*, the Roster Issue and the Convention issue, both of which are costly. This will probably eat up our little nest egg, but at least for the first six months we have been able to stay well within the budget and may not have as big a deficit at the end of the year as we thought.

The professional cards in *The Journal* are charged for at the rate of $2.00 per insertion or $24.00 per year. We can get 16 cards on one page which makes an income for a page of professional cards at $32.00 a page. Our advertising rate for a single page contracted for a whole year is $63.00. If we were to charge for professional cards at the same rate we charge for ordinary advertising, we would need to raise the rate to $4.00 an insertion and $48.00 a year. If we raised the rate on professional cards to the point where we would just break even on advertising, it would be $5.00 an insertion and $60.00 a year. I think that The Council should decide whether to discontinue professional cards entirely or to charge $48.00 a year for them, or $60.00 a year.

I think it would be better to do away with them.

On motion of Drs. Everly and Black, the Council voted to discontinue the printing of professional cards in The Journal.

DR. MAURICE E. GLOCK, president-elect, presented the following report: I too attended the Auxiliary meeting and I think they are doing a terrific job. I hope that you're sending the Auxiliary a letter thanking them for their fine gift.

The thing I particularly wanted to discuss this morning is our financial position and our approach to it. For the first time since I've been attending any of these meetings, which goes back several years, we are in a position of deficit finance.

The members of the Executive Committee have been perturbed for quite a period of time at our approach to our method of financing and to our understanding of our financial position.

The members of the Executive Committee, aside from myself, I think are well informed men; they make a sincere effort to understand the position of the matters that are brought to the Executive Committee.

Several months back the suggestion was made by the Chairman of the Executive Committee that we consider hiring an investment counsellor or counsel who would advise us regarding our position with our bonds and our indebtedness. At that time the report was made by the treasurer that this would be a needless expense because we already were obtaining advice through our bank regarding the position of our bond investment. We keep coming back to this—at the time I thought, "Well this is good, why spend any more money when our treasurer can call up the bank and have somebody who is highly skilled in this give us advice?"

However, there is a breakdown on this in the fact that either there isn't sufficient time for the treasurer to get to the bank to find out the position and report it to the Executive Committee or many times the treasurer or assistant treasurer are not there to be able to instruct the members of the Executive Committee regarding our position. I'm particularly stupid when I get all these numbers—I don't understand it and I'm very frank to tell you this—I'm no financial wizard—it perturbs me and I think the other members of the Executive Committee, I think I'm speaking for all of them, aren't able to sit down and have a full understanding of this material. This is not a criticism of Dr. Gillespie but I said to Mr. Waggener last night—how has this been done in the past? We have been embarrassed more years on what to do with our excess funds really than what we are going to do about deficit financing and it appears that back in the good old days when we had a lot of money that Ferd Weyerbacher would come to the headquarters office, maybe two days a week, and sit down and talk about the financial position.

It was my understanding that following that there had been some slacking of efforts on the part of the treasurer, who is responsible, but that there was some eye kept on our financial position. Well, we've changed our structure a little bit; we have accountants and auditors and we know that we have complete honesty. We know that we have good figures but this has gotten to the point where the auditors prepare a report and it is mimeographed by the headquarters office. We go into a meeting and at the time that I get my copy of the report, the treasurer gets his copy of the report. This is true isn't it Dr. Gillespie? This morning is the first time he has seen the report.

I feel that, and the Executive Committee feels, it is imperative in this era of deficit financing that we have a more complete understanding of this. The recommendation for this was made at the Executive Committee last night—the minute these reports are available, the headquarters office should get them in the hands of the treasurer and the assistant treasurer so that they can study it. The Executive Committee passed a motion that directs, not simply that the bank report to us once a week on the bond structure and the best way to use them, but that the treasurer make an appraisal with the bank. In other words, this implies communication between the treasurer and the bank on our position in regard to our bond structure. We have an authorization to borrow up to $150,000.00 this year and we feel that much of this is going to have to be borrowed probably before October.

We've got a very advantageous deal worked out where we do not have to borrow this money in a

lump sum. We can borrow $20,000 or $30,000—it looks like we are going to need $60,000 or $70,000 in the next couple of weeks to make a payment on the building—some of this, quite likely, maybe a great part of it may be covered by the sale of our bonds but in the meantime we have used up our dues money to be in this position at the present time and for our running expenses we are then going to have to start borrowing from the bank to pay our way. This is going to require a tremendous amount of attention to detail and thought and study on the part of the treasurer and the assistant treasurer. I'm sure that this will be demanding to the point that it will not suffice to get a report from the headquarters office mimeographed of what the auditors read at the close of the month. I think that we have to be alert and we have to know where we stand almost from day to day. I don't think your Executive Committee is doing a good job from my own personal standpoint because I don't think we are well enough informed. I don't know the answer to this. I think each of us should bear in mind, I would like advice from any of you here; I would like to know anything that any of you can tell us on the Executive Committee what we can do to get better information, to get more diligence in regard to this very important job. This is a plea for help and I have talked to you to try to at least have you informed of our present situation. Thank you.

Report of AMA Delegates

DR. FRANCIS LAND reported that it is anticipated that the following matters will be brought before the June meeting of the American Medical Association, to be held in Chicago:

(1) Revamping of the Joint Commission on Accreditation and removing the Joint Commission from domination by the American College of Surgeons. "Many resolutions are being introduced to make this a completely AMA organization. About twelve resolutions are in the hopper in this respect."

(2) Controversy between the AMA and the American College of Surgeons and the possibility that the Board of Abdominal Surgeons may become a part of the AMA.

(3) Recommendation of the committee appointed to receive information concerning complaints about the Board of Trustees that the AMA Board of Trustees be enlarged by three members.

(4) Resolutions concerning whether the AMA should go on record supporting the Salk or the Sabin vaccine.

Reports of Guests

a. Home care for the chronically ill and aged.

DR. A. C. OFFUTT, State Health Commissioner and a member of the Commission on Aging, in the absence of Dr. Nathan Salon, chairman of the Commission on Aging, discussed the home care program for the chronically ill and the aged. Dr. Offutt presented to the Council a seven-page statement, drafted by the sub-committee of the Commission on Aging, composed of Dr. Frank Hall, State Department of Public Welfare, Dr. Harry R. Baxter of Seymour, and himself. **On motion duly made and seconded, discussion and action on this document were deferred until the July Council meeting.**

b. Nationwide vaccination program. Dr. Offutt spoke of the two bills pending in Congress which would provide polio, tetanus, whooping cough and diphtheria vaccination for children from four years and under, at no cost. A survey made by the Indiana State Board of Health of some of the state health departments revealed that the states are about evenly divided in favoring and opposing this program.

"Under the situation as we know it with regard to the vaccination of this group of children it is my considered opinion that this is neither feasible nor is it needed in this state. It isn't money that is needed, but it is some way to get the people, to motivate them to get their children immunized.

"Finally, this is a three-year program. The cost, of course, is pretty high. Administrative costs are large, as you might well expect and there are many of us who believe that there is another way to do this without this type of thing, and Mr. Chairman, I submit this for your information. As I said I am against it."

c. Mental health program. DR. GLEN WARD LEE, member of the Commission on Governmental Medical Services, reported on a meeting of the Council on Mental Health of the AMA which he attended in February, the purpose of which was to culminate plans for a national meeting on mental health, to be held on Oct. 4, 5 and 6, 1962, and to which physicians from as many county medical societies as possible and a number of lay individuals will be invited. "The meeting will enunciate somewhat of a new policy for the AMA, in that the AMA has been criticized frequently for not giving the average physician an opportunity to have a say in determining their policies. The members of The Council look on this meeting as being comparable in importance to the President's meeting on the aged, which was held a few years ago, in that they feel that this is one of the most forward steps that the AMA has taken in several years.

"I'll read the list of those organizations that have been suggested that we invite to this meeting. From the professional groups: State Medical Association, Woman's Auxiliary, the Association of General Practice, Commissioner on Mental Health, State Psychiatric Associations, State Hospital Associations, State Dental Associations, State Nursing Associations, Psychological Association, Social Workers Associations, Dean and Professors

of Psychiatry in Medical Schools, Family Welfare Associations, College Health Associations, State Bar Associations, State Board of Health and Auxiliary. From government: the Governor, the director of legislative budget boards, the chairman of state departments on medical education, bureau of welfare and pensions, and payment insurance companies. Groups: Mental Health Associations, League of Women Voters, State Educational Associations, P. T. A., Junior League, American Red Cross, Alcoholics Anonymous, Service Clubs, District Governors, Professional Women's Clubs, the American Legion, Council of Churches, County Judges and Commissioners, State Bankers Associations, the AFL-CIO, and Medical Assistants.

"This will be a three-day meeting. It will be broken up into sections. You will go into workshops and discuss segments of this program, then make recommendations. They have provided a basic policy statement which is to be reviewed and finally approved or corrected. Then you will come back into a general conference, the sections will report, make their recommendations, and the final outcome will be the final statement of policy on mental health of the AMA."

Dr. Lee elaborated further by reading a letter from Dr. Ralph Kaufman, chairman of the conference: "We are anticipating a national conference on mental illness and health this fall. The success of this conference will depend upon you participants of this conference. It is through you that we hope to invite the kind of people to the conference who are most significant in your community and who are really interested in the major aspects of our problem. We need allied professional and interested lay citizens, as well as physicians.

"The Council and I ask you to go back to your region, states and counties and begin at once to set up working units for the national conference. We would like for you to get to know the physicians and allied workers in your area and begin to plan what all of you can do. We would like for you to suggest to us whom we should invite to the national conference from your area and let us know your plans and programs that you are developing."

Discussed by Drs. Stimson, Neumann, Edwards, Glock, and Ochsner.

Dr. Challman moved, first, that the Council ask for clarification regarding this meeting from the Board of Trustees of the AMA, and second, that the Indiana delegates to the AMA meeting in June be instructed to oppose this meeting as it has nothing to do with lay groups, and, if necessary, to introduce a resolution to that effect. Motion seconded by Dr. Neumann. On voting, the Council adopted the first part of the motion.

Dr. Challman withdrew the second part of his motion in view of the fact that the AMA delegates and alternates will meet with the Executive Committee on June 2 to discuss political and other matters to come before the June meeting of the AMA. By that time the Executive Committee should have clarification and information on the October mental health meeting.

d. Use of exile physicians in state mental institutions. Dr. Lee called attention to the fact that in Indiana state mental institutions are not fully staffed because of shortage of physicians. Inasmuch as Indiana requires citizenship and a licensure waiting period, the state hospitals cannot utilize foreign physicians. This was discussed by Drs. Ochsner, Kintner and Rifner.

On motion of Drs. Neumann and Stimson, the Council voted to maintain the present policy in regard to licensing and employing foreign physicians.

DR. JOHN D. VAN NUYS, dean, I. U. School of Medicine, reported on:

(1) Status of medical school enrollment. "We probably will take from 207 to 210 students this year in contrast to 197 this last year, and that will include at least 15, maybe as many as 17, in the experimental medicine program at Bloomington."

(2) Progress on remodelling of Riley Hospital for Children.

(3) New teaching hospital for adult patients to replace Long and Coleman hospitals. (These buildings will be converted to teaching and outpatient services.)

(4) The use of money received during the past year for research and training purposes. "The availability of research work in the departments has secured for us good teachers and enabled us to keep them, and has given great opportunity to students for employment in their off quarters in something that is educational rather than just earning a living."

1962 Annual Convention, French Lick, October 6-10, 1962

DR. VIRGIL C. McMAHAN, chairman of the Commission on Convention Arrangements, presented a revised program, as follows, for the French Lick meeting:

Sunday, October 7, 1962

Noon	Executive Committee meeting.
3:00 p. m.	Council meeting.
6:00 p. m.	Meeting of House of Delegates.

Monday, October 8, 1962

8:00 a. m.	Reference Committees meet.
8:00 a. m.	Annual golf tournament.

9:00 a. m. Annual trap and skeet shoot.

1:00 p. m. Section meetings.

6:00 p. m. Supper, smoker and stag party. Presentation of trophies.

7:15 to 8:45 p. m. Panel discussion: *"Exertion, Exposure, Compensation and Reemployment"*

Moderator:

KENNETH G. KOHLSTAEDT, M. D., Indianapolis.

BENJAMIN F. SMALL, Dean, I. U. School of Law, Indianapolis.

JAMES V. DONADIO, Indianapolis.

RUSSELL S. HENRY, M. D., Indianapolis.

ROBERT B. CHEVALIER, M. D., Indianapolis.

8:45 p. m. Fireside Conferences on *Cardio-Respiratory Diseases*

Tuesday, October 9, 1962

9:00 a. m. *"Aerospace Medicine"*

JOHN B. HICKAM, M. D., Indianapolis.

STUART BONDURANT, M. D., Indianapolis.

Traveling Road Show on Technics and Equipment.

11:00 a. m. Time allowed to view technical and scientific exhibits.

1:30 to 3:00 p. m. Panel discussion: *"Pathological Conditions of the Upper Gastrointestinal Tract."*

Moderator:

STANLEY BATTERSBY, M. D., Indianapolis.

JEROME F. WIOT, M. D., Cincinnati, radiologist.

EDWARD B. SMITH, M. D., Indianapolis, pathologist.

FRED M. HUNTER, M. D., New Orleans, gastroenterologist.

3:30 p. m. Time allowed to view technical and scientific exhibits.

4:00 to 5:00 p. m. *"Care of the Injured"*

CARL D. MARTZ, M. D., Indianapolis.

6:00 p. m. Cocktail hour.

7:00 p. m. President's dinner.

Speaker:

DONAL E. J. MacNAMARA, president, New York Institute of Criminology.

Dancing.

Wednesday, October 10, 1962

8:00 to 10:00 a. m. Time allowed to view technical and scientific exhibits.

10:00 a. m. *"Juvenile Delinquency"*

DONAL E. J. MacNAMARA, et al.

Members and wives urged to attend.

1:00 p. m. Final meeting of House of Delegates. Election of officers and completion of unfinished business.

Blue Cross-Blue Shield

Mr. R. S. Saylor, Mr. Lloyd Banks and Mr. James Herod appeared before the Council to explain the changes in the doctor's group contract.

MR. SAYLOR: Since its establishment, a number of individuals outside the medical profession have slipped into the group. The group carried itself up until the last three or four years and then it started to either just break even or lose money, until the past year quite a serious loss was sustained for both Blue Cross and Blue Shield. A rate increase was put into effect under the rating formula on file with the insurance department. Now the group is going under the supervision of the enrollment department and will be handled on the same basis as any other group.

MR. HEROD explained the activity up to the present time and Mr. Banks told of the results since his department had assumed the underwriting and administration of the physician's contract.

MR. BANKS: In our responsibility, as charged, we meet periodically with management of various industries to evaluate their needs as they might see them, discuss the health care market and the economics associated with it and make recommendations that they might consider and adopt as their rules under which their health care program operates.

We wish to advise you of some of the circumstances involved regarding the physician's account, make certain recommendations, and with your pleasure place into effect the underwriting rules which you have agreed upon.

In all of our enrolled accounts one benefit plan predominates. We have found over the years that this is highly desirable because it leads to uniformity in operation and administration, it tends to decrease misunderstanding between the participants of a given group. Where more than one plan is in effect they fail to realize or understand the differences in the benefits and as a net result they become dissatisfied with the plan they have.

We proposed two benefit plans to you and other physicians through the mail the latter part of March. The first being a deductible type which, over the past few years, we understood that the physician desired. As you know Indiana Blue Cross-Blue Shield has had a deductible type plan in its sales kit for the last five years. During that five-year period we have been unable to interest

any employer group in it. We find that most industrial organizations prefer a first dollar coverage rather than a deductible type. But we understood that the professional man's health care needs might be a little bit different than the average individual therefore the deductible approach was utilized here for the first time in the state of Indiana.

I would like to report to you today that of the physicians in the state offered this program three hundred and eighty-nine, to date, have applied. Only nine purchased the $1,000 deductible, three purchased the $750 deductible, fourteen purchased the $500 deductible. In the field of underwriting such a small enrollment presents a rather impractical situation. From an administrative and sales viewpoint, in the normal market, you would withdraw these provisions and keep only the one that was predominately selected which was the $250 deductible.

Another interesting fact is that 78% of the people who applied have one or more children—we are talking about three-party contracts or more—67% of the risk is over age 50 which you don't usually find in industry as such.

The comprehensive "first dollar" service plan, which is the normal approach of Blue Cross-Blue Shield, was purchased by some twelve hundred and twenty-five physicians. The total enrollment in the physicians account as of yesterday amounts to 2,528 physicians. Blue Shield prior to this period had some fifteen hundred members now it has twenty-five hundred so there has been a growth of about one thousand members in Blue Shield. The enrollment in Blue Cross-Blue Shield, even during this period of controversy, increased considerably.

We are suggesting to the Council that you might wish to assist us in our efforts to provide the physicians of Indiana an adequate prepayment health care plan. There are four things I would like to propose.

First—we would like help in establishing the underwriting regulations and rules that might apply to your group.

Secondly—we wish your assistance in developing a benefit plan that would most nearly satisfy the needs of the physicians in general. We realize that if we try to appeal to the individual we will receive as many answers as there are individuals.

Third—we suggest that you provide us the media for communicating with the physicians statewide. We wish to report to the Council annually the amount of premium income, the money spent on behalf of the physician and his family. In other words, an actuarial accounting of the events occurring during the year much as we do with the industrial groups throughout the state. We feel that this is highly essential and in that way we think much misunderstanding at the physician level will be remedied.

Fourth—we would like to submit to you for approval the materials used for general distribution to the physicians.

If we could accomplish these four things I am confident that the type of misunderstandings that has prevailed in the last sixty days would be avoided in the future. We trust that you will give this your consideration and that we will be provided the opportunity of working with you.

Discussed by Drs. Eades, Glock, Kintner, Popp, Stimson, Shields and Neumann.

On motion of Drs. Neumann and Black, the Council voted that the Council shall become the group sponsor and co-ordinator of the physician's Blue Cross-Blue Shield plan.

Unfinished Business

(1) **Blue Cross reconfirmation procedure.** At the January 1962 meeting of the Council the motion of Drs. Stimson and Edwards to rescind the action which was taken by the Council at its July 1961 meeting "that physicians of Indiana do not participate in the reconfirmation procedure program proposed by Blue Cross" was tabled. This action was taken pending receipt of written legal opinion on whether or not a physician would be liable to pay the hospital bill if he signed a reconfirmation slip and then it was determined later that hospitalization was unnecessary.

In the interim since the January 1962 Council meeting, the attorney addressed a letter to each member of the Council stating that physicians are not liable for the hospital bills when they sign reconfirmation slips.

On motion of Drs. Everly and Stimson the motion made at the January 1962 Council meeting, to rescind the July 1961 action, was removed from the table for discussion.

DR. LESTER H. HOYT, vice-chairman of the Professional Advisory Committee of Blue Cross, reviewed briefly the proceedings of the annual meeting of the Blue Cross Board of Directors, including the election of officers, the financial statement, and the reconfirmation program.

"Regarding the fifteen-day waiting period, I have some information here that I would like to read from our agenda of the annual meeting. This is Mr. Spring's report to the members.

"As you know, a constant rise in hospital costs in the last few years has created a veritable storm of controversy over what was causing the increase. One of the most often heard remarks was that abuse and malingering were responsible for most of the increase. Yet many surveys by various organizations throughout the country failed to reveal any significant percentage of either abuse or malingering. Despite these statistics the public still clamored for an end to what they felt was overuse of Blue Cross. They blamed the doctors for keeping patients in the hospitals too long and they

accused Blue Cross of paying for these excess stays.

"We began to study this problem thoroughly many months ago, analyzing the results obtained by several other Blue Cross Plans which have instituted various types of reconfirmation programs. We discussed the situation with our hospital advisory committee, the professional advisory committee, the labor advisory committee, and our legal counsel, as well as with the Insurance Commissioner.

"It was finally decided by your Board of Directors to inaugurate a fifteen-day reconfirmation program last July 1. As has been reported to the Board a savings in excess of $250,000 resulted in August, September and October of 1961. If this trend continues it could result in savings of about $1,000,000 per year.

"The success of the program of course is possible only because of the splendid cooperation of the medical profession and the hospitals. The result obtained is a superb demonstration of the ability of the voluntary system to solve its own problems.

"There has been no enforcement of this. It has been strictly voluntary. There was a date set up to cut this off and start the enforcement. Doctor Stimson asked us not to do this. We are most anxious to have this remain on the voluntary basis and have no intention of starting an enforcement without having proper chance to have everything thoroughly understood." Doctor Hoyt stated that in many areas compliance with this program is 100%. In a few areas the rate is low. The average is about 85%.

Dr. Glock moved that the action taken by the Council at its July 1961 meeting "that physicians of Indiana do not participate in the reconfirmation procedure program proposed by Blue Cross" be tabled again. Motion lost for want of a second.

Following discussion by Drs. Glock, Kintner, Edwards, Black, Hoyt, Stimson and Neumann, **on motion of Drs. Stimson and Eades the Council voted to rescind the action taken by the Council at its July 1961 meeting.**

(2) **Building Committee.** DR. RALPH EVERLY, chairman, reported that the headquarters office would be moved to the new building on Friday, May 4.

Dr. Everly also reported receipt of gifts of $6,850.00 from Mrs. J. William Wright, widow of J. William Wright, Sr., M. D., to furnish the Council meeting room, and of $1,000.00 from the Woman's Auxiliary. **On Motion of Drs. Everly and Stimson, taken by consent, formal recognition is to be made to the donors of these gifts.**

(3) **Liaison Committee between Council and Blue Shield.** Dr. Neumann, chairman, spoke briefly on Blue Cross and Blue Shield matters. Other members of this committee are: Drs. Black, Edwards and Kintner.

DR. WALTER L. PORTTEUS, new President of Blue Shield, commented on the report from the Liaison Committee.

Legislative Matters

In the absence of Dr. Don E. Wood, chairman of the Commission on Legislation, Dr. Stimson reported on pending legislation.

Economic and Organization Matters

1. **Remission of state dues.** The Council voted remission of state dues as follows:

Floyd County—one member, because of forced retirement due to illness, on motion of Dr. Paris, adopted by consent.

Marion County—six members, on motion of Dr. Everly, taken by consent; one for 1962 only—out of practice due to home responsibilities—and five permanently, because of retirement.

2. **Membership Report:**

Number of members as of December 31, 1961	4,338
1962 members as of March 31, 1962:	
Full dues paying	3,595
Residents and interns	142
Council remitted	28
Senior	366
Honorary	3
Military	41
Total 1962 members as of March 31, 1962	4,175
Number of members as of March 31, 1961	4,081
Gain over last year	94

Number of AMA members as of March 31, 1962	4,055
Total 1961 AMA members as of March 31, 1961	4,042
Gain over last year	13
1962 AMA members: Dues paying	3,469
Exempt, but active	586
	4,055
Number who have paid state dues but not AMA dues for 1962	120

New Business

(1) Matters referred to Council by Executive Committee.

a. The recommendation of the Executive Committee that the Association re-examine its position with the Indiana Blue Shield Plan was discussed.

b. The article in *Medical Economics* concerning apparent suppressing of a confidential survey on Blue Shield was called to the attention of the Council.

(2) **Two resolutions received from the Madison County Medical Society** regarding (a) censorship of Eli Lilly and Company's action in requesting the federal government to build medical schools, and (b) opposing H. R. 4222, were read.

(3) **Resolution on Essentials of an Approved Internship,** which was introduced at the AMA in 1954 but not approved at that time was discussed by Dr. Francis Land, AMA delegate. Three years later a resolution, requesting the House of Delegates to appoint a committee to study the need for out-patient departments before hospitals can offer internships was approved, but the committee has never been appointed. "Dr. Lall G. Montgomery suggests that the Council again take some action concerning this matter so that our community hospitals won't be denied internships simply because they don't have an out-patient department."

On motion of Drs. Glock and Stimson, the AMA delegates are to be instructed to reintroduce a resolution concerning this subject and again request that it be implemented.

(4) Resolution adopted by the Indiana Academy of Ophthalmology and Otolaryngology disapproving the advertising of contact lenses in classified sections of telephone directories, was discussed by Dr. Neumann. No action was taken.

(5) **Nominations for two members of Editorial Board,** to succeed Drs. Samuel R. Mercer, Fort Wayne, and Franklin F. Premuda, Hammond, whose terms expire December 31, 1962. **On unanimous ballot, Drs. Alvin J. Haley, Fort Wayne, (general practice), and Franklin F. Premuda, Hammond, (pediatrics), were nominated for membership on the Editorial Board for three-year terms expiring December 31, 1965. On motion of Dr. Edwards, taken by consent, the nominations were closed and the unanimous ballot of the Council was cast for Drs. Haley and Premuda.**

(6) **Blue Shield Board members.** Attention was called to the expiration March 1, 1963, of Blue Shield Board members from the Second, Third, Sixth, and Eleven Districts, nominations to fill these Board memberships to be made by the respective districts.

Nominations of three members-at-large. On unanimous ballot, Dr. Walter L. Portteus, Franklin (general practice) was elected to succeed himself for the three-year term starting March 1, 1963, as Blue Shield Board member-at-large. Additional nominations were deferred until a later Council meeting.

By consent, July 15, 1962, was set for the summer meeting of the Council.

There being no further business, the meeting was adjourned.

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Contributors are responsible for all statements made in their articles. The editors and editorial board members may not be in agreement with all views expressed by authors, but it is desired to give all authors as great latitude as possible. However, the right is reserved to reduce in length or reject any article.

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Communications dealing with editorial matter should be sent to Frank B. Ramsey, M.D., Editor, 1802 North Illinois Street, Indianapolis 2, Indiana. All other communications should be sent to THE JOURNAL of the Indiana State Medical Association, 3935 N. Meridian, Indianapolis 8.

Advertising rates will be furnished on request. Copy must be received by the 5th of the month preceding month of issue. (Scientific manuscripts must be received at least two weeks earlier if geared for a specific issue.)

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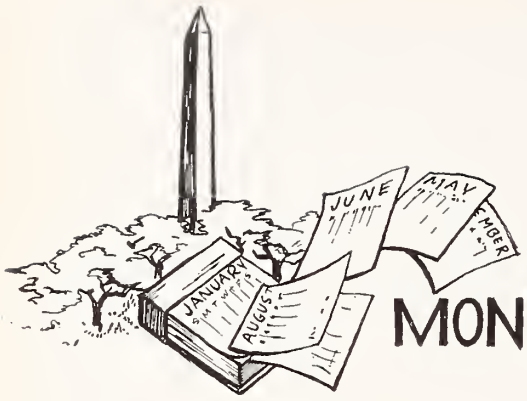
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This summary of what is happening in Washington is prepared by A.M.A.'s Capitol office and air-mailed to *The Journal* on the ninth of each month preceding month of issue.

MONTH IN WASHINGTON

WASHINGTON, D. C.—The American Medical Association endorsed in principle the Kennedy Administration's proposed mass immunization program, but urged three important changes.

Dr. F. J. L. Blasingame, executive vice president of AMA, outlined the AMA's position in a letter to Rep. Oren Harris (D., Ark.), chairman of the House Commerce Committee which held hearings on the Administration legislation (H.R. 10541) Dr. Blasingame said:

"The American Medical Association endorses the principle of H.R. 10541 as applied to the four infectious diseases named in the bill—poliomyelitis, diphtheria, whooping cough and tetanus—but urges that: (1) the bill be limited to the four named diseases; (2) the bill be financed as a grant-in-aid program with the states participating on a matching formula basis; and (3) the programs be administered by State Health Departments, preserving the well-established and accepted relationships between the United States Public Health Service and the States in matters pertaining to health."

ASIAN FLU VACCINATION URGED

The Public Health Service called on physicians to cooperate with community health officials and voluntary health agencies in launching in September a campaign to vaccinate pregnant women, persons suffering chronic debilitating diseases and the general population over age 45 against Asian influenza.

Surgeon General Luther L. Terry of the PHS urged that as many persons in these groups as possible be protected with one shot, or two if they are prescribed, before winter.

The call for the vaccination campaign was issued after a special advisory group warned that another wave of Asia influenza is due in the United States. The committee said that while accurate predictions are difficult, recent and past patterns of influenza A2 (known as the Asian strain) indicate it probably will occur throughout the nation this winter. The committee said indications were that influenza B would be infrequent.

The committee also recommended that serious consideration be given to immunizing persons in medical and health services, public safety, public utilities, transportation, education and communications fields. Dr. Terry said large scale immunization should be encouraged also in

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1. Borota, A., and Grinell, R.N.: J. Amer. Geriatrics Soc., 10:413, 1962.
2. Spoor, H. J.: N.Y. State J.M. 58:3292, 1958.
3. Lubowe, I. I.: Western Med. 1:45, 1960.
4. Weissberg, G.: Clin. Med. 7:1161, 1960.

Continued

other industries and large institutions where absenteeism is of particular concern.

Previous campaigns included all persons over 65, but the age limit was lowered after study of past outbreaks.

Manufacturers of influenza vaccine were asked to estimate the amount of vaccine that would be needed and to have an adequate supply ready.

ADMINISTERED BY STATE HEALTH DEPARTMENTS

The Committee accepted two of the changes proposed by the AMA—that the program be limited to the four specified diseases and administered by State Health Departments. The bill then was passed by the House and sent to the Senate where it promptly received approval of the Senate Labor and Public Welfare Committee.

The bill would authorize federal grants to states and their political subdivisions for "intensive community vaccination" programs during the next three fiscal years. It would authorize $14 million for grants in the first year of operation and $11 million annually for the following two years. The federal funds would be used to purchase vaccine for children under age five, and for salaries and related expenses of the state and local immunization programs.

"Our House of Delegates has on many occasions adopted policy resolutions urging immunization against polio, tetanus, and other communicable diseases for which vaccines exist," Dr. Blasingame said. "Although traditionally it has been the policy of the American Medical Association to urge that the best means of administering vaccines is in the doctor's office, with the family physician vaccinating his patients, we also have recognized that intensive immunization against communicable disease is a public health matter."

NUCLEAR TEST RADIATION FINDINGS INCONCLUSIVE

The Federal Radiation Council said that indications are that radiation received by the average American from nuclear testing is "considerably less than the exposure from natural sources."

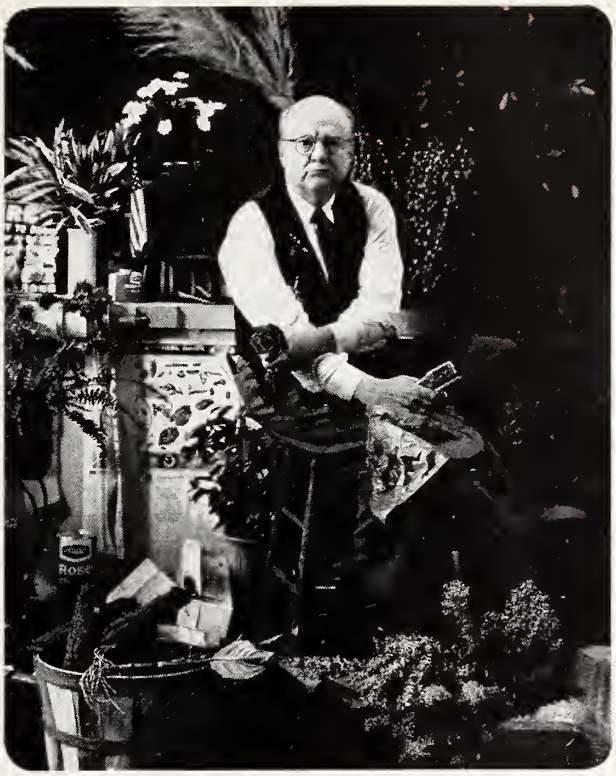
But, in a major policy statement, the Council conceded that there is little scientific data to back up this conclusion and that it is difficult to be precise in this field.

"While a considerable body of information has been accumulated on the effects of radiation on animals and man, the possible effects of low doses delivered at low dose rates are insufficiently known to permit firm conclusions about the extremely low exposures resulting from fallout," the Council said in a report, "Health Implications of Fallout from Nuclear Weapons Testing Through 1961."

"We cannot say with certainty what health hazards are caused by fallout from nuclear testing. We expect there will be some genetic effect; other effects such as leukemia and cancer are more speculative and may not occur at all. We can observe that, compared to the number of these same adverse biological effects occurring wholly apart from testing, the additional cases that might be caused by testing are a very

Continued

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small quantity. We conclude that nuclear testing through 1961 has increased by small amounts the normal risks of adverse health effects."

The report said radiation doses from all nuclear tests through 1961 "have generally been a small fraction" of the amount received from natural radioactive sources such as radium in the earth's crust, cosmic radiation from space, and carbon-14 and potassium-40 in the human body.

Basing its estimates on measurements of radioactive particles in air, rain, soil, water supplies, food and human bodies, the Council said the dose from all atomic tests through 1961 was from one-tenth to one-quarter of the amount received from the natural background. ◄

About Our Cover

Adults and children today use the idiomatic term "Shots", this word is almost becoming synonymous with a visit to the doctor . . . the child is told "It's only a little shot, if you are good then perhaps the doctor will give you a lollipop!" . . . the adult does not receive a reward of candy, but far better, he receives rapid relief from symptoms or prophylactic protection against disease.

The hypodermic syringe was perfected just over 100 years ago; unfortunately history does not relate who was responsible for the final development of this most indispensable instrument.

Diseases such as diphtheria, typhoid, scarlet fever and whooping cough that in years past contributed so largely to the appallingly high infant mortality rate then current, are prevented today by vaccines, administered in the form of "shots." The latest of these killers to be conquered is polio, using the Salk vaccine, but what use would be the vaccine without the method of administration?

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Our cover this month pays tribute to all those General Practitioners, the family doctors, whose arrival when summoned, gives help, comfort and relief from pain . . . in whose "black bag" will always be found a hypodermic syringe. M.E.R.



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LOOKS AT MEDICINE

This section of THE JOURNAL is devoted to the presentation of opinions which appear on the editorial pages of the public press, and which are of interest to the medical profession. Its function is to review comments which may be favorable or unfavorable to medicine. Members are invited to submit editorial clippings for this column.

Socialized Medicine?

In previous discussions of the King-Anderson bill, we have avoided applying the term "socialized medicine" to the proposal.

We have done so because the demerits of the bill are so numerous they deserve to be explored on their own. A tax-increase proposal which will do little or nothing to "aid" anybody, after all, just about recommends its own defeat.

But the question of socialized medicine is one which needs to be raised. And the King-Anderson bill is socialized medicine, to the extent it would control doctor-patient relationships at the hospital. It would affect the patient's choice of hospital doctors' prescription of drugs, resident-teaching programs, and the like.

The bill does not make provision for doctor's services outside hospitals, and to that extent it is not socialized medicine. But it is clear that, even here, socialized medicine would be its end result.

In his Madison Square Garden speech, President Kennedy explicitly compared the King-Anderson bill to the British medical program, which he apparently views with favor. And certainly no one will deny the British National Health Service is socialized medicine, pure and simple.

Movement toward the British system is also suggested by King-Anderson backer, Walter Reuther, who says he will not be satisfied with this bill, but views it merely as a foot in the door. ("Nothing is static. Nothing is fixed. Therefore if we could get the principle established, we want to build on that principle . . .")

And one advocate of the King-Anderson philosophy, Dr. James P. Dixon, says: "Because it is in the history of other nations whose culture derives from the same ethos [e.g., Great Britain], I believe too that we will increasingly nationalize health services. Those who say that health insurance for the aged is only a step toward the wider use of national health insurance are probably correct."

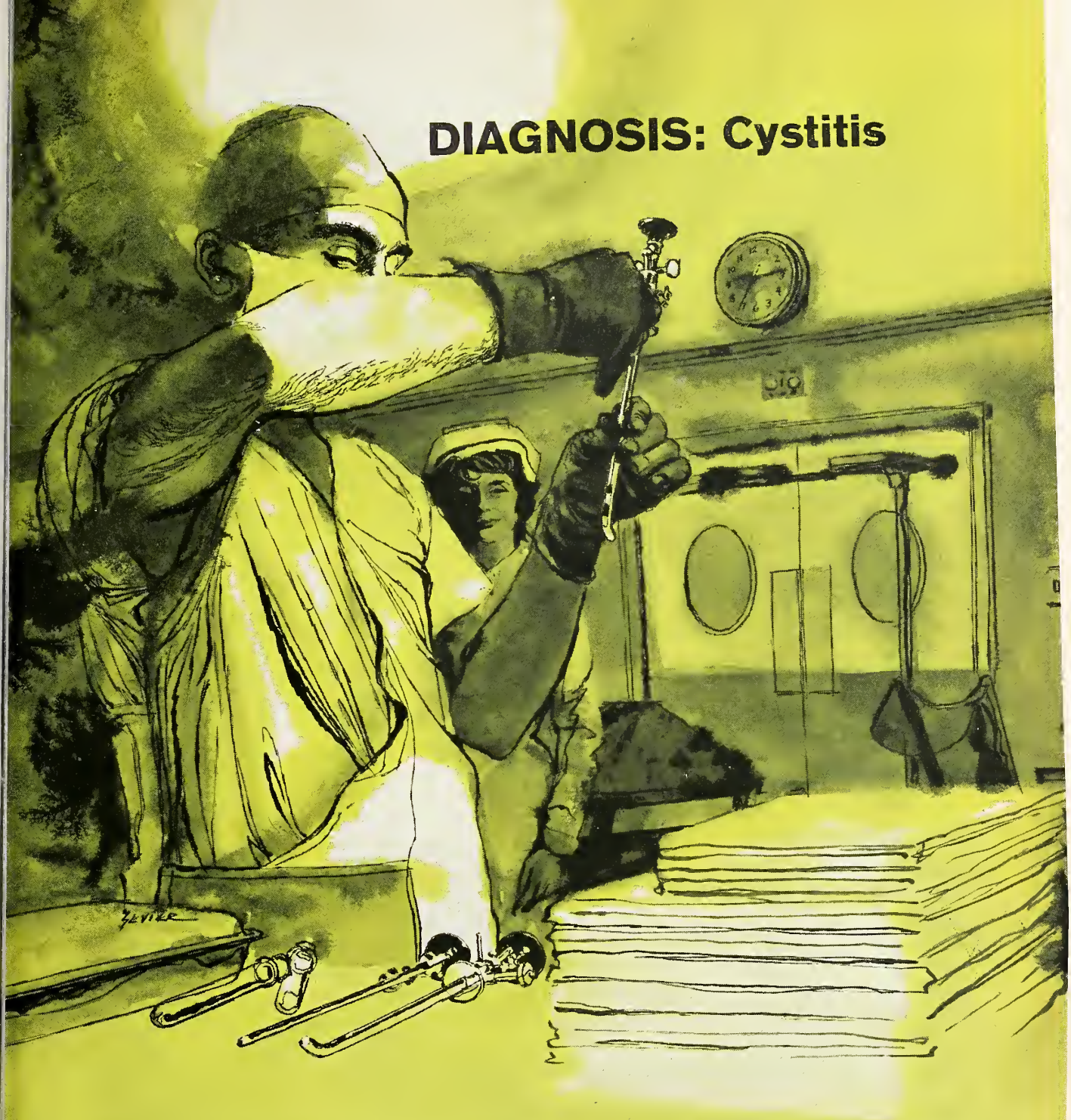
It becomes clear, then, that adoption of the King-Anderson bill will be a crucial step toward a system of nationalized medicine such as that prevailing in Great Britain. And it is therefore important to examine that system to determine what would be in store for us here.

The answer is that the experiment in Britain has been a woeful failure. It is generally conceded that medical services in the British Isles today are inadequate. Hospitals there have waiting lists of more than half a million people. Only one new hospital has been constructed in the last 14 years (compared to 724 built in the United States). Up to a two-year wait is customary for surgery which is not of an emergency nature.

Moreover, the costs of the program have skyrocketed. The National Health Service now costs five times what was originally estimated for it. To keep up with all those who demand his "free" services (and to earn a living of some $4,000 a year), a doctor must treat 100 patients a day.

The reason for all this trouble: Many Britons have come to look upon "health" services as a soft touch. One doctor tells of a patient who asked him to prescribe 10

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pounds of absorbent cotton—so he could stuff a sofa. This doctor adds:

"I paid government-imposed 'fines' for prescribing the best medicine for my patients. I spent anxious hours in search of hospital space for the critically ill. I saw hospital grants frivolously spent on television sets and new carpeting."

The result has been to create a situation intolerable for doctor and patient alike. The physician quoted above, E. Lloyd Dawe, decided in 1955 that he could take it no longer, and came to the United States—one of thousands of doctors who have fled the British Isles in recent years.

The British Health Ministry says that about 600 qualified doctors have been leaving the country each year, to be replaced by foreign doctors from the "underdeveloped" nations, many of whom do not even speak English. Result: Of 9,541 doctors now employed in British hospitals in junior positions, only 5,913 are British-trained.

As Dr. J. R. Seale points out with typical British understatement in the article above, this is a result of "unattractive" conditions of service in Britain—and it suggests a deep crisis for British medicine in the years to come.

A recent issue of *U.S. News and World Report* shows that the great need in American medical practice today is for more doctors. Yet if we follow the course Great Britain has followed, it is obvious we will have fewer doctors, not more. If doctors find medicine unattractive, they will either move to some other country or, barring that, will simply drop the profession.

The path marked out by Great Britain is clearly the path to disaster. And yet that is the path which President Kennedy, through the King-Anderson bill, wants us to take.—*Indianapolis News*, May 22, 1962.

Quote—Kennedy vs. Kennedy

"I understand that there is going to be a program this week against this (medicare) bill in which an English physician is going to come and talk about how bad their plans are. It may be, but he ought to talk about it in England, because his plan—what they do in England is entirely different."—President Kennedy, addressing a televised medicare rally, New York, May 20, 1962.

"The fact of the matter is that what we are now talking about doing, most of the countries of Europe did years ago. The British did it 30 years ago. We are behind every country pretty nearly in Europe . . ." —President Kennedy, same rally, same date. (Editor's note: The British National Health service began in 1948—14 years ago.)—*Indianapolis Star*, May 31, 1962.

Who's Going To Run It?

Any Hoosier congressman, Senator or Representative, could serve the people of the entire United States if he will find out what agency of the government will administer the Kennedy hospital plan at the local level. If anyone knows, nothing has been said about it. Certainly the President failed to clutter his now-famous oration with any such mundane details.

At the moment, it is much easier to find out who will not handle the so-called medical care plan at the personal level. No one in Indiana knows.

The State Department of Public Welfare believes that it will not handle the program, should it be enacted by Congress. Various state officials have read the proposed King-Anderson law, and they are unable to find any concrete answer to the question of administration. Welfare Director Albert Kelly cheerfully said, "If you find out who or how this thing is going to be handled, let me know. We can't find out."

The head of the Federal government's Social Security system in Indiana is equally in the dark. His best guess is that some sort of administrative agency, not Social Security, would be designated "through a ruling by the Secretary of the Department of Health, Education and Welfare." While the taxes for the Kennedy program would be collected through Social Security, and while any payments would come out of Social Security funds, there is no existing body of offices or personnel in that branch of government capable of taking care of any sort of medical program.

There are some 20-odd Social Security offices scattered over Indiana, none of them with personnel qualified to handle claims

for hospital or health care. The Indiana Social Security head theorized that a health program might be channeled through the vocational rehabilitation system, or the state and county welfare departments.

There is, of course, that stock answer offered by the professional bureaucrat. The "proper thing" might well be the creation of an entirely new arm of the Federal government reaching into every county and city of America. The prospects for empire-building, for patronage for political favoritism are almost unlimited.

On the strength of its record, a new agency with more employees would probably be the answer of the Kennedy administration to the problem of handling any hospital program. The Federal government has grown by leaps and bounds under his leadership.

The executive branch showed a net increase of 74,454 employees during the last calendar year, according to the Senate committee on government operations. Independent agencies showed 17,955 more employees in 1961 than in 1960. There were 2,344,410 Federal workers on the public payroll at the start of 1961 and 2,418,864 working for the taxpayers at the end of that year.

While the President misinformed the people about his so-called medical care program generally, he just hasn't informed them at all on this score.—*Indianapolis Star*, May 31, 1962.

Death in Canada

The "medicare" dispute in Saskatchewan Province, Canada, in which doctors have gone on strike against a government program of compulsory medicine, contains a frightening lesson for the United States.

The doctors are resisting a government medical plan under which, they believe, they and their patients would become wards of the state. As a result, many people in the Canadian province have been unable to receive medical care. Several deaths have occurred which, although it is uncertain whether they would have transpired without the strike, have served to embitter the dispute with tragedy.

There has been an effort of sorts to turn the Canadian episode into an indictment of the doctors, berating them for their supposed inhumanity.

The implication is that, somehow or other, they should be prevented from "striking" to protest the government program. In this view, people in the medical profession apparently are not at liberty to withdraw from their occupation of their own free will.

The issue is a crucial one. The crying need in Canada—and in the United States, too—is to have, not fewer, but more men and women trained in the healing arts, ministering to the needs of the public. The question now dramatized for us by the Canadian strike—a question as important for other professions as for medicine—is: How do you get people to become proficient in this highly specialized field, and to make their skills available to the public?

There are, in the final analysis, only two answers to that question: Either to let the profession be suitably rewarding and satisfying, or else to use compulsion, as is done in totalitarian countries, to force people into occupations chosen for them by the state. If a prospective doctor or lawyer or TV repairman will not undertake a profession of his own free will, the only other possibility is in effect to put a gun at his head and tell him he has no choice in the matter.

In a free society, the first alternative is the only possible one. Yet government interference, in many such free societies, has rendered that alternative progressively less appealing. Government interference in the medical profession in England, for example, has made that occupation so unattractive that thousands of physicians have migrated to other countries. Now, in Canada, government interference has caused doctors to quit their profession en masse until the interference ceases.

The comment of Saskatchewan's Peter Derhousess, whose nine-month-old son died of meningitis during a desperate race to a distant hospital, is worth pondering: "In my thoughts," Derhousess says, "I think the government is more to blame than any-

thing. There is no use having a scheme if you can't have doctors." And you can't have doctors, in a free society, if doctors are harassed from their profession by government intervention.

The grim lesson is that government interference, by discouraging doctors from taking up or continuing their practice, can very well bring about *less* medical care, not more. That fact has been made clear by Great Britain's steady loss of physicians in recent years. It has been tragically underscored by the past week's happenings in Canada.—*Indianapolis News*, July 9, 1962.

The Medical Care Bill

From arguments going the rounds in the Marion area, it is apparent many persons are not fully acquainted with terms of the King-Anderson Bill for medical care of the aged.

The misunderstandings are so widespread that many people even believe the program, if enacted by Congress as part of Social Security, will provide all-inclusive medical services.

This is a falsehood that is most unfortunate and that has clouded the thinking of too many people.

Major benefits under the King-Anderson Bill include:

1—Up to 90 days of in-patient hospital service but the patient must pay $10 per day for the first nine days.

2—Up to 180 days of nursing home services.

3—Up to 240 visiting nurse calls at home per year.

4—Out-patient diagnostic services but the patient will be reimbursed only for amounts exceeding $20 per service.

Not included in the King-Anderson Bill and left up to the patient to pay are:

1—Doctor's fees.

2—Drugs, unless a regular part of the services of the hospital or nursing home.

3—Hospitalization in mental or T.B. institutions.

4—Dental care.

It is readily seen that the King-Anderson Bill falls far short of providing the all-inclusive type of medical care that many persons have been led to believe is included.

It is a bill that should be killed by Congress. So it behooves every straight-thinking citizen to let the members of Congress know how he or she stands on the medical care issue.—*Kokomo Tribune*, June 2, 1962. Reprinted from *The Marion Leader-Tribune*.

Freedom to Serve

For at least two good reasons, the people of the Indianapolis community should be pleased to learn that Eli Lilly & Co. sales for the first quarter of this year rose 16% above a year ago while net earnings increased 38%.

First, the Lilly pharmaceutical firm is a principal industry of the city. Its well-being is a major part of the well-being of the entire Indianapolis area. The economic benefits which derive from its expanded sales extend far beyond its thousands of employees to all the mercantile, professional and service establishments in this area, to their employees and their families.

Second, increased Lilly earnings will continue, as they have in the past, to make possible expanded production of and research on healing drugs for the benefit of all mankind. Just one sample of this research program is the announcement that Lilly representatives have made 11 reports on a new cancer drug to the American Association for Cancer Research at Atlantic City, N. J.

Indianapolis' Eli Lilly & Co. is an outstanding national example of how free enterprise business can move forward from one successful achievement to another in a continuous chain of benefit to the community in which it is located and to people everywhere.

There are those in Washington today who want to extend the dead hand of federal "regulation" to the free American drug-making industry. If anything would kill research progress toward the cure of cancer and other dread afflictions, that would be it. Hoosiers have good reason to be among the foremost in combating the price fixers seeking to invade the drug industry. —*Indianapolis News*, Apr. 14, 1962. ◄

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An address to the House of Delegates of the American Medical Association, 111th Annual Meeting, Palmer House, Chicago, June 25, 1962.

A Fight for Freedom

LEONARD W. LARSON, M.D.
President, American Medical Association

THE AMERICAN MEDICAL ASSOCIATION is emerging from a great struggle opposing the most massive concentration of power ever brought to bear against the medical profession. We have fought a formidable alliance of government and labor. The executive branch of the federal government, using federal employees and taxpayers' funds controlled by President Kennedy, and the AFL-CIO, utilizing the far-flung empire of money and manpower commanded by its national leadership, have combined their enormous strength against us.



Leonard W. Larson, M.D.

I have been asked on occasion why we have engaged ourselves, our time and energies and resources to such unequal combat, why we submit to the vilification and abuse that has been heaped upon us week after week for months on end, why we undertook this battle at all. My reply is that to understand our reasons you must look to the deeper meaning of this struggle. This is not merely a quarrel over the provisions of a piece of legislation known as the King-Anderson Bill. This is not simply an argument over whether government should tax one group of citizens to provide health benefits indiscriminately, regardless of need, to another group. This is not solely a disagreement over the best means of providing health care for our elderly citizens.

No, this conflict touches on issues more grave, more important to the American people. This great struggle has been testing again whether the science and art of medicine will be permitted to grow and flourish in freedom, or whether progress in medicine will be stunted and shriveled by the excesses of government control.

Last fall when I spoke to this House of Delegates, I quoted from a speech of Senator Robert Kerr. It was appropriate then and it is appropriate now as an evaluation of the purpose for which we have fought so hard.

"I would not discourage you," Senator Kerr said, "because the task is not hopeless—but it's not self-executed. You have probably the greatest opportunity of any generation of your profession that has ever lived, and all future generations of your profession are going to know whether or not you did your part in keeping the environment for them that has been such a blessing to you. If you do what you are capable of doing and the rank and file of those identified with you across the nation join you, you can tell your children that you made the fight that kept for you the environment which has been your blessing—and passed it on, unimpaired and unsullied, to those that you love even more than you do yourself."

Letters Support Medicine's Stand

Many others have recognized the deeper meaning of this conflict. There is the 12-year-old boy

who wrote, pleading with us not to waver in our determination to win because he wants to be a doctor but not under socialized medicine. There is the woman concerned for the future of her children. "It is because of these children we are aiding and abetting your cause," she wrote. "Their freedom is at stake as much as your profession, and it's all disguised in a pretty little package where the government provides everything for its people—including the time of day if it were possible."

There is the man who voiced his recognition of the fundamental issue involved in these words: "The doctors of our country can do wonders to save the lives of our people, in more ways than one." Others have been equally perceptive—and grateful. Without the AMA, one said, "How could those of us who subscribe to less government, more individual responsibility have stood up under the President's hurricane?" And another wrote a thank you from the grass roots "for the job the AMA is doing—not so much in its own behalf as for all Americans."

Why do we fight? These people, and thousands more like them, answer this question for us in words more eloquent than any I can command.

Their letters are among more than 41,000 pieces of mail we have received since our television program May 21. More than 90% of the letters support our position and our cause.

Threat to Freedoms

These letters of gratitude and encouragement came from people of all ages, the very young and the very old, and of all walks of life. Coming from all corners of the country, they signify a widespread and growing understanding that we are fighting to safeguard for the people themselves a progressive and dynamic system of medicine without equal anywhere on earth. They signify a widespread and growing belief that if the freedom of medicine is lost, other freedoms are in jeopardy.

But they are a symbol of something else to me—the fact that physicians everywhere have acquitted themselves proudly in this arduous campaign. Physicians have responded to the strenuous demands upon their time and energies and talents with patience and good taste, with courage and honor. They have met abuse and slander with forbearance. They have answered misrepresentation and deception with truth and fact. The results have won the respect and admiration of our friends as well as our critics, and they have confounded our enemies.

Six months ago, our critics were writing us off, predicting that we could not avert defeat. The alliance of government and labor had mounted the most gigantic lobbying offensive in the nation's history. Officials and employees of the federal government by the scores were dispatched on barnstorming tours across the country at taxpayers' expense openly lobbying for the King-Anderson scheme. This army of itinerant salesmen for this proposal were sent out without regard to whether such use of government personnel and tax funds is improper and might also be a violation of law. A suite in the White House Office was opened up and manned by a staff directed to grind out speeches, news releases, advertising copy, articles for magazines and newspapers, radio and television scripts and other propaganda for King-Anderson.

An organization of senior citizens was formed for the exclusive purpose of lobbying for the King-Anderson Bill. This organization is lobbying, but it has ignored the law which required that it be registered as a lobbyist and account for the source of its funds and how they are spent. The leadership of this council of senior citizens quickly converted it into a political tool of the Administration and the AFL-CIO. The executive director of the council acknowledged in a magazine interview that the White House was "calling the shots" for its pro-King-Anderson campaign. The council was billed as the sponsor of the May 20 King-Anderson rallies around the country, but in city after city, officials of labor unions were identified as the rally organizers.

Against the tremendous power of this government-labor combine, I am sure the AMA was expected to buckle and retreat in panic and confusion. I am proud to say we did not. Instead, we doubled and redoubled our efforts, never wavering in our belief that we would win this greatest struggle in the history of the AMA. As I stand here before you today, I am more firmly than ever convinced that we will win the battle and the war. A tidal wave of genuine grass roots opposition to the King-Anderson Bill has produced a flood of letters to Congress demanding that it reject the bill. Even our severest critics now concede that only by a miracle can the bill survive a vote in the House Ways and Means Committee. Administration sponsors are frantically seeking what is described as a compromise in a desperate eleventh hour bid to stave off defeat. The odds are running in our favor.

No Need to Compromise

Let me say a word here about compromise. The steadfast refusal of the AMA to compromise on basic principles, even in our darkest hours, has been a source of strength for us and our friends. We have taken an adamant stand against proposals that would lead to the centralized, government control of the practice of medicine in whatever guise they have been offered. If we begin now to bargain away that principle, we will sap our strength, splinter our forces and create a pattern for surrender. Furthermore, we have no need to compromise on the King-Anderson Bill. We are on sound ground and always have been.

We are *for* the expansion of voluntary health insurance and the prepayment plans for the solvent and self-reliant, and *for* the Kerr-Mills Law to help those who need help. The Kerr-Mills Law may not be a perfect instrument for the task of providing financial assistance to the needy aged for medical

care. It may require adjustment to make it more effective. But it is sound in principle. What it needs most is administrators—federal and state—who are dedicated to its success, not its sabotage.

Our beliefs in these and other areas are constructive and affirmative. We are *for* improvement in the public attitude toward our older citizens. We are *for* flexible, voluntary retirement programs in industry and government so that the productive capacity of older employees will be used for their benefit and the benefit of the nation. We are *for* the preservation of the right of our citizens to make their own decisions in a free society. We are *for* voluntarism and *against* compulsion.

While I am confident of victory in this struggle from which we are emerging, I am mindful that victory will carry with it a solemn obligation for all members of this House and all physicians they represent—the obligation of responsible leadership. Ten years ago, a survey disclosed that half the people in this country had never heard of the American Medical Association. Today, I am certain that virtually every adult at least has some knowledge, however meager, of the AMA. Because we have conducted our campaign honestly and vigorously and because we are close to achieving victory against heavy odds, the stature of the AMA and all of its members has been enhanced materially.

Consequently, the physician can anticipate that he will be called upon to assume a role in society that heretofore he may have shunned for a variety of reasons. That role will be leadership in community, state and national affairs. It is incumbent on each of us to accept the responsibilities of leadership, not as a burdensome duty but as an obligation of mature men. Let me add that the actions of this House this week and in the future should reflect your awareness of your obligation to exercise responsible leadership.

Medicine is an institution of service to mankind. Public attitude toward the medical profession reflects to a significant degree the manner in which the individual physician serves his patients. Much criticism of the profession is unjustified, some is not. Much of it is based on misinformation and misunderstanding. I am convinced that greater involvement by the physician in community affairs will help immeasurably to smooth out the two-way avenue of understanding between the physician and his patients and help create a climate in this country which will make it unlikely, if not impossible, that a new King-Anderson type measure will be proposed again.

Dedicated Friends Have Helped

Before I leave this platform, I want to make it clear that I do not entertain any notion that the American Medical Association has stood alone in this battle. On the contrary, we have been aided by a host of friends dedicated to the same principles that we are. Their tireless and effective work has made our task vastly less difficult. Among our magnificant allies may be counted millions of individual citizens who are as steadfastly opposed to government controlled medicine as we are.

Many great national organizations have unhesitatingly taken on their full share of the burden of this struggle—the American Farm Bureau Federation, the health insurance and pharmaceutical industries, the Blue Shield Plans, the U. S. Chamber of Commerce and local chambers, the Federation of Business and Professional Women, national and local junior chambers of commerce, the American Dental Association, Young Americans for Freedom —and many others. My gratitude and thanks to all of them are boundless.

I want to take this opportunity also to congratulate the staff of the AMA, particularly the staff task force, the officers and executives of state and county medical societies and the thousands of physicians who are their members, and the women of the auxiliaries for a truly extraordinary performance in medicine's most critical hour. It is particularly fitting and appropriate that the presidents of our 52 state and territorial societies are in attendance at this meeting and will be on stage when Dr. Fister is inaugurated as the 116th president of the AMA.

If victory is close, it is because thousands of people—physicians, staff members and women of the auxiliaries—have worked together in a tremendous demonstration of effective teamwork. Let me caution you, however, that if the battle is ours, the basic philosophical conflict remains. We cannot afford the luxury of idleness or complacency. It is imperative that physicians, their wives and other adult members of their families become active in politics to a degree they never have before.

I urge all physicians and their families to support AMPAC and to engage in political activity in their communities, their counties and their states. If they devote as much energy to politics as they have to the King-Anderson fight, I am certain they can exert a strong influence on the course of elections next fall. Success at the polls in congressional elections next November—and in future elections—is the key to the preservation of the freedom of medicine.

At this time, I want to make certain observations —at least for the record—which reflect my growing concern over actions and situations which I believe do not improve the efficiency of our association. If we are to carry out effectively the responsibilities that historical events are demanding of us, our organizational efficiency must be maintained at an optimum level.

Fortunately, a man who is about to become a past president can have the temerity to discuss questions which are inherently sensitive politically. I am referring to the relations between the Board of Trustees and the House of Delegates and between Committees of the House and the Board. I think the House must appreciate that the Board of Trustees, selected by this House from the member-

ship of the House is, in effect, the Executive Committee of this House of Delegates. Enormous responsibilities are vested by the Constitution and Bylaws in this Committee of the House, which is called the Board of Trustees. I need not tabulate them, for most of you are aware of them.

But I believe that you are, perhaps unwittingly, undermining the effectiveness of the Board and therefore of the Association as a whole, by continuing to appoint committees of the House of Delegates for the study of problems and the conduct of programs that traditionally have been the responsibility of the Board of Trustees or a committee answering to the Board. I do not question your right as the House of Delegates, as the policy making body of the AMA, to disperse important decision-making among many different committees, but this effort to assure internal checks and balances can go so far as to achieve only splintering, needless overlapping and organizational confusion.

I urge you to consider again the logic of the existing relationship between certain standing committees of the House of Delegates to the House, as well as the establishment of several recent continuing committees which also report directly to the House.

I should like to call your attention to a Bylaws provision under Chapter X, Section III, Page 21, which was adopted some years ago in an effort to establish a clearer authority and responsibility for the Board of Trustees. The key sentence of Section III, under Chapter X, "Committees of the House of Delegates," reads "Committees that function during the interval between sessions of the House shall be under the direction of the Board of Trustees." The action of the then House of Delegates which led to this important provision has been honored more in the breach than the observance thereof. A strong reiteration of this provision of Section III by this House of Delegates would go far toward reversing recent trends which I believe are incompatible with the optimum development of our organizational needs.

This is my farewell address to this House of Delegates. In a few hours, I will step down as your president and turn the reins over to my able successor, Dr. Fister. Mere words cannot express my feelings at this moment. I am profoundly grateful to all of you for having given me the privilege and the honor of serving as your president, and particularly for having entrusted this office to me at such a critical time in our history. While I retire as your president, I assure you I will not cease my interest in the problems and programs of the AMA. I hope that I will be able to serve the association in other capacities in the future as I have in the past.

I want to express my gratitude to Dr. Hussey and the other members of the board, to Dr. Blasingame and Dr. Howard and other members of the staff for the generous assistance, unstinting cooperation and wise counsel they have given me during the past year. My thanks go also to the many members of this House—too many to list here by name—who have given me support and assistance in the administration of this office. The unfailing help and cooperation of all of these people have made my tasks infinitely easier.

Again, my thanks—to all of you. ◄

Massive Doses of Vitamin C In the Treatment of Viral Diseases

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Shelbyville

TREATMENT OF VIRAL DISEASES presents to the physician a perplexing and frequently unrewarding problem, particularly since some 50 different diseases of man are of viral etiology. To date no generally effective therapeutic measures have been devised for treating viral diseases, although some diseases caused by the largest of the known viruses appear to be affected by some chemotherapeutic agents. Therapy with specific antisera is useful as a preventive measure during the incubation period of some viral diseases, but is generally of little value once clinical manifestations of the infection have ensued.[1] Therefore, an effective therapeutic agent that would substantially reduce the morbidity of the majority of viremias would provide the physician with a most valuable adjunct to treatment.

There have been a number of reports in the literature suggesting that infectious disease processes rapidly accelerate vitamin C depletion and greatly increase vitamin C requirement.[8] The role of vitamin C in maintaining stability and tensile strength of connective tissue is well known. This property favors, among other things, the building of a protective barrier against infectious invasion.[4] When ascorbic acid stores are severely depleted during the course of infectious diseases, capillary resistance decreases and susceptibility to the action of certain toxins appears to increase.[2] It has been suggested that means of altering the susceptibility of cells to invasion by viruses could provide a method of controlling as well as preventing infection.[7]

Several investigators have reported employing massive parenteral doses of ascorbic acid in the adjunctive treatment of viral diseases. Klenner[3] has advocated and employed massive doses of intravenous ascorbic acid for many years in the treatment of various viral diseases including measles, mumps, chickenpox, viral pneumonia and viral encephalitis, and has reported remarkable results. Even with doses as high as 65 mg./Kg. Klenner rarely encountered any adverse effects and those were limited to the site of injection. Klenner has administered chemotherapeutic agents along with ascorbic acid to reduce secondary bacterial infection and has recommended the subsequent use of Vitamin B_1 following infectious diseases involving the nervous system. He further theorizes that the near absence of ascorbic acid in infectious states may be attributed to the vitamin combining with the toxin and/or virus to form a new complex which is easily destroyed by oxidation.

Free from Reaction

McCormick[4] administered ascorbic acid intravenously or intramuscularly in massive repeated doses, 500 to 1000 mg. every four hours. He reported that this approach exhibited a potent chemotherapeutic-like action in acute infectious processes which compared favorably to that of the sulfonamides or antibiotics but with the advantage of complete freedom from toxic or allergic reactions. Baur and Staub[5] reported highly satisfactory results were obtained with daily intravenous infusions of 10 gm. of ascorbic acid in 1000 cc. of isotonic saline solution administered for an average of five days to patients with infectious hepatitis. They have described the action of ascorbic acid as "virucidal." Calleja and Brooks[6] reported that daily intravenous infusion of 5 gms. of ascorbic acid for 24 days resulted in remarkable improvement in a patient with acute hepatitis when other therapeutic measures had proved futile.

Reports from German literature show

that high doses of vitamin C are beneficial in epidemic hepatitis in children. These beneficial effects were clearly observed in 63 cases of epidemic hepatitis treated with high doses of vitamin C in doses of 10 gms. daily for an average of five days given either by rectal infusion or intravenously, or both.[9]

This investigator evaluated a product trademarked Viron-1* as an adjunct in the treatment of a series of cases involving diseases of probable viral etiology. Viron is a preparation for intravenous administration consisting of 2000 mg. of ascorbic acid per dose fortified with certain B-vitamins. I was primarily concerned with patient response to this mode of therapy since time of recovery was of major economic importance to these patients. It has been my past experience that the more intense the patient's symptoms the greater the morbidity and the longer the convalescent period.

The following case histories are representative of this therapeutic regime:

Infectious Hepatitis

A 20-year-old white female hospital medical technician was first seen for the present illness on Nov. 9, 1959. The illness dates back to the spring of 1959 when she began to feel progressively weaker, exhibited malaise, anorexia, slight nausea, when it was discovered that she had an icteric tinge in her serum. She was treated with bed rest for four days and the sub-clinical jaundice disappeared with a return of her icterus index to normal.

Later in November her symptoms of malaise were intensified, she began to lose weight, became progressively weaker, and presented herself for examination. It was decided that she had clinical jaundice of a minor degree; however, the liver was not palpable and her physical examination was essentially normal.

She was hospitalized on Nov. 11 and was seen in consultation by an internist who confirmed the diagnosis of hepatitis, etiology unknown. Her admission laboratory work revealed a urine which was essentially negative, except for the presence of bile. Her heterophile antibody titer was negative; the icterus index was 13.8 units (normal being 4 to 6 for the method used); her hemoglobin level was 7.5 gms., hematocrit reading was 21%, white blood count was 13,000 with 72% polymorphs, 22% lymphocytes, 3% monocytes and 3% eosinophiles. Prothrombin time was 105% of standard. Occult blood was found in her stool. Other diagnostic procedures including chest x-ray and gastrointestinal series were normal.

The patient was treated with bed rest for three days while confirming laboratory tests, observations and examinations were made. Her icterus index rose to 32.5 on Nov. 14. The patient's temperature remained "low grade" being 99.2-99.4 orally at the highest points. After a period of complete bed rest and high carbohydrate diet, the diagnosis was confirmed by the internist, a second consultant, and this clinician. At no time in her illness did she receive chemotherapeutic agents.

Dramatic Improvement

The administration of Viron-1 was initiated and she received six intravenous 10 cc. injections during the remainder of her hospital stay. Following the second injection of Viron-1 the patient was amazed with her progress and remarked that she had lost the feeling of "being sick." She wanted to go home within 24 hours after Viron-1 injections were initiated, but hospitalization was continued. She was dismissed on Nov. 20, 1959, markedly improved in subjective feeling and dramatically improved clinically.

The patient was seen in my office on Dec. 1, 1959 at which time her white count had dropped to 7,000 with 53% polymorphs, 37% lymphocytes, 3% monocytes and 4% eosinophiles. Hemoglobin level was 12.8 gms. and her icterus index had dropped to 8.0.

There is no question in the mind of this investigator that the intravenous administration of Viron-1 had a profound therapeutic effect upon this patient. She had obtained minimal benefit from complete bed rest and high carbohydrate diet before the administration of Viron-1. She outwardly

* Viron-1 was supplied by Lincoln Laboratories, Inc., Decatur, Ill.

exhibited, and freely discussed with the attending physicians, her feeling of well-being following the administration of intravenous Viron-1. An accurate diagnosis of the exact type of hepatitis was impossible. It was assumed to be viral in nature; however, it may well have been a toxic condition. Other than the academics involved, the exact etiology is relative. The important factor to consider is that she responded to Viron-1 in a most satisfactory manner and one cannot but assume that the medication exerted a profound effect upon her progress.

Past experience with hepatitis of various etiologies has given this observer the impression that recovery from hepatitis, regardless of etiology, is extremely slow and painstaking. The rapid and complete response of this patient to Viron-1 has not been observed following classic and accepted therapeutic measures for treating hepatitis. It is difficult to comprehend a set of circumstances that would coincidentally explain the marked and rapid improvement in a patient as sick as this girl. It was certainly the most dramatic recovery from hepatitis that I have ever observed.

Infectious Mononucleosis

A while female, age 36, complained of generalized aching, exhaustion, anorexia and malaise. Her physical condition prior to these symptoms had been normal. Fever, remittent in type, accompanied the symptomatic complaints. A complete blood count revealed large vacuolated lymphocytes. A positive heterophile antibody titer of 1:226 was recorded. A diagnosis of acute infectious mononucleosis was made and intravenous Viron-1 therapy was initiated. Clinical and subjective response to three consecutive daily 10 cc. injections was excellent. Symptoms remitted in one week following beginning of therapy. The overall morbidity was reduced beyond expectation for the diagnosed condition. The medication was well tolerated and no adverse side effects were noted. The rapidity of patient response to Viron-1 was dramatic since full recovery from infectious mononucleosis rarely takes place in less than two to three weeks in my experience.

Virus Pneumonia

A 60-year-old male physician presented himself with a history of excellent health except for his present illness. His symptoms were exhaustion, cough, low grade fever, anorexia, generalized aching and profuse sweating upon exertion. Viral pneumonia—patchy type—of the right upper lobe was found and confirmed by x-ray findings. Treatment consisted of 10 cc. intravenous Viron-1 for three days, bed rest, and ASA Compound. The response was excellent—strength returned on the fourth day and on the fifth day the physician returned to work. The I. V. Viron-1 was well tolerated and no untoward side effects were observed. Viron certainly shortened the expected morbidity for a case of this nature.

Acute Viral Type Pneumonia

A female, age 47, was in excellent general physical condition with exception of chronic bronchiectasis. When first seen for her present illness this woman was completely debilitated. She was confined to her bed and complained of exhaustion, anorexia and generalized chest pain. Temperature elevation ranged from minimal to normal. A diagnosis was made of acute viral type pneumonia with secondary bacterial involvement of sinus and bronchial tree. She was given intravenous Viron-1, 10 cc. injections, on Oct. 26, 27 and 30 and Nov. 3, 6, 9, 1959. No other medication was utilized. Patient felt better after the second injection of Viron-1 and insisted on continued therapy. Her exhaustion syndrome continued to show remarkable improvement. Progress was continuous and the administration of Viron-1 markedly reduced morbidity as compared to her previous recurrent pneumonias. She tolerated the injections well and no adverse side effects were observed.

Viral Pneumonia and Bronchitis

A male, age 41, was in good physical condition except for the present illness and recurring pain from a herniated lumbosacral disk. He complained of headache, generalized muscular aching and exhaustion. His temperature was 100°-100.4° orally. The diagnosis was acute viral pneumonia and

bronchitis, following acute sinusitis. Injections of intravenous Viron-1, 10 cc., were given on July 14, 15, 16, 1959. The patient was seen for follow-up examination on July 23 and was symptom free. He had experienced marked relief both from sinusitis and viral pneumonia symptoms and had returned to work on fifth day following therapy without my permission. The morbidity period in this case was definitely shortened beyond expectation. Viron-1 was well tolerated by the patient and no side effects were observed.

Generalized Viremia

This male, age 72, was in fair general physical condition. Patient complained of "feeling bad", hoarseness, exhaustion and depression following "influenza." His temperature was normal, but he had a persistent cough. I made a diagnosis of generalized viremia with bronchitis and right recurrent laryngeal neuritis. Viron-1 was given intravenously on Oct. 28, 30 and Nov. 6, 1959. He experienced a relief of symptoms and felt better. Marked improvement in symptoms of viremia were observed. The medication was of questionable benefit to the neuritis. Viron-1 was well tolerated—no untoward side effects were observed.

Summary

In these selected six cases of probable viral infections, Viron-1 promoted prompt patient response. In four of the above mentioned cases improvement was especially rapid and dramatic. The patients were of different groups and conditions treated were varied. Of significant interest is the shortened morbidity period observed when Viron-1 was given either singly or in conjunction with other therapy. No untoward side effects were observed.

Conclusion

In the experience of this investigator daily doses of 2000 mg. of ascorbic acid fortified with B-complex vitamins given intravenously provides a valuable adjunct in the routine management of a variety of acute viral infections. Further investigation is warranted to determine the complete range of viral diseases which can be treated beneficially with this therapeutic adjunct.

BIBLIOGRAPHY

1. Cecil & Loeb: *A Textbook of Medicine*, 10th Edition, W. B. Saunders Co., Philadelphia, 2, 1959.

2. Beckman, H.: *Drugs, Their Nature, Action & Use*, W. B. Saunders Co., Philadelphia, 640, 1958.

3. Klenner, F. R.: Paper presented at 52nd Annual Meeting of the Tri-State Med. Assn., Columbia, S. C. Feb. 19-20, 1951; *J. So. Med. & Surg.* 100, 2, 1948; 101, 7, 1949; 103, 4, 1951; 104, 8, 1952; *J. Appl. Nutr.* 1953; *Tri-State Med. J.*, 9, 1956; 6, 1957; 6, 1957; 10, 1958.

4. McCormick, W. J.: *Arch. Pediat.* 68, 1-9, 1951; 69, 151-5, 1952.

5. Baur, H., Staub, H.: *Schweiz, Med. Wchnschr.* 84, 595, 1954; abstracted in *J.A.M.A.* 156, 565, 1954.

6. Calleja, H. B., Brooks, R. H.: *Ohio State Med. J.*, p. 821, June, 1960.

7. Modell W., (Ed.), *Drugs of Choice, 1960-61*, C. V. Mosby Co., St. Louis, 176, 1960.

8. Merck Service Bulletin, *Vitamin C*, pp. 126-135 1956 containing abstracts of 26 clinical reports relating to the role of Vitamin C in infections.

9. (a) Kirchmair, H., Ascorbinsaurebehandlung der hapatitis im kindesalter, *Das Deutsche Gesundheitswesen*, 12:773, 1957; (b) Kirchmair, H., and Kirsch, B., Behandlung der hapatitis epidemica im kindesalter mit hohen dosen ascorbinsaure, *Medizinische monotsschrift*, 11:353, 1957. ◄

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Equality for All—Social Insecurity*

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NEARLY ONE HUNDRED YEARS ago one of our great citizens spoke these words, "Four score and seven years ago our fathers brought forth on this continent a new nation, conceived in liberty, and dedicated to the proposition that all men are created equal." Liberty, equality, freedom. An opportunity for each of us to advance and to achieve. Such characteristics of this new nation are most impressive compared to the absolute monarchies and feudal states of the past or to the totalitarian nations of today.

In feudal times the possibility for advancement or for change in social and economic status was virtually non-existent. If the father was a baker, the son became a baker. If the father was a nobleman, so also the son. If one's ancestors were peasants, the offspring could look forward to no more than a life of further peasantry. Regardless of individual intelligence or talent, it was virtually impossible to rise above the barriers set by heritage.

In the totalitarian state, liberty and freedom are even less existent. The only freedom is the choice between conforming with the will of the dictator, or perishing. True, the dictatorship does offer more opportunity for personal advancement than did the monarchies of old. However, such advancement is totally dependent upon the whim of the dictator. To succeed the individual must, in some way, serve the power needs and goals of the dictator. In comparison the liberty and the equality of our free society seem wonderful indeed.

* Paper read before the Indiana Academy of General Practice Scientific Session, March, 1962.

Freedom Brings Achievement

The advantages of our free society with equal opportunities for all to succeed and to improve ourselves can be seen around us. Many obvious advancements have occurred in numerous fields, including science, literature, business and industry. We have color television, men in space, air conditioned automobiles, pushbutton kitchens, automation, rapid advancements in medical research and many other obvious achievements. The high standard of living in our society, with its many conveniences and luxuries, must certainly surpass even the most grandiose dreams of our forebears. The old adage "Necessity is the mother of invention" would appear incorrect. None of man's inventions were necessities. He had survived without them for centuries. The neediest nations today are usually the least inventive. In reality, freedom is the mother of invention.

But, let us look a little closer. What else has our free society with liberty and equality for all provided for us beside advancements and conveniences and high standards of living? Has the end result been all good, or has it likewise created problems? The liberty and freedom granted us by our forefathers gave us an opportunity to advance and succeed. Through the years this opportunity to succeed seems to have developed into an actual need to succeed. How often have each of us been told since our early childhood that anyone can become president of the United States? How often have our parents told us to do well in school and study hard, because "I want you to do better and to go farther in life than

I have?" How often were we urged to throw the ball farther, or run the race faster, or play the game better than the boy next door? What great emphasis was placed on school achievements and classroom grades by our teachers and parents? Study hard and learn well so that you might succeed and get ahead in life.

Need to Succeed

This urge to succeed and to better the social and economic status of our parents was implanted early in our minds and frequently nourished along the course of our development. In feudal times each one in the social order had his traditional place with which he could be satisfied. Now everybody seems to be struggling for the best places, even though only a few are chosen to attain them. Obviously, we all cannot become president of the United States.

If one of us does manage to climb a step on the ladder of success, must not another slip a little bit? Our need to succeed has created important conflicts and problems in our society. Such a need, by its very nature, creates competition among men. The striving for success, the competition, has driven us apart. We live in a United States, but actually we have become a divided people. Our society consists of "atoms", minute particles isolated from each other, but bound together by selfish interests and by the necessity of making use of each other.

Despite our competitiveness, our strivings for success remain incompletely gratified. Our isolation and aloneness increase. There results anxiety and insecurity in our society. The products of this anxiety are in evidence around us. The United States ranks among the world leaders in the incidence of suicide, alcoholism and psychosomatic diseases. Those slipping backward on the ladder of success often seek a means of escape through alcohol or self-destruction. Those desperately struggling to hang on to the ladder, or climb upward, must frequently use only one hand, while taking antacids or tranquilizers with the other.

The "Enemy" Above

In addition to anxiety, we see hostility—particularly hostility directed toward those who have succeeded. No person in an executive position can hope to please everyone, regardless of how efficiently, productively and sincerely he performs his duties. There will always be some who criticize and disagree. Behind these barrages of hostility one can usually find a person whose needs for success have been frustrated. It is difficult to admit failures and to become annoyed at one's self for personal shortcomings. It is much easier to project this annoyance and hostility outward to either real or fancied shortcomings in another. One's faults are often more readily seen in another person than in one's self. If this someone happens to be in a position of authority, then hostility and criticism cannot only whittle him down to size, but also compensate for inner anxiety, loneliness and frustration.

Our freedom and our equality have resulted in problems as well as privileges. Regardless of our improvements and our high standard of living, our needs to succeed continue. Our nation, as a whole, has become frustrated, anxious, hostile and insecure. To cope with this we are now witnessing increasing security consciousness in our nation. Individuals frustrated in their drives to succeed, isolated from others due to competitiveness, and hostile to those more successful are searching for someone or something to eliminate their anxieties and to provide security.

Looking for Father Image

As children we looked to our parents during troubled times to give us strength and guidance, to comfort our pains, to ease our tensions. Now, we see our nation, with equality for all but insecurity for most, looking toward a strong parent figure—the federal government—to solve its problems. The creeping, or is it galloping, trend toward socialization is here. There is no need to give examples of this trend. We see its influence in housing, in agriculture, in education, and, perhaps soon, in medicine. The true extent of socialization and federal influence will soon become even more apparent to each of us when federal income taxes become due.

What is socialism? Webster defines so-

cialism as "Any of the various theories or social and political movements advocating or aiming at collective or governmental ownership and administration of the means of production and control of the distribution of goods." Those who drafted our constitution saw the need for equal rights coming from the inequalities existing in the abilities of individuals. By equality they meant that men should be treated as if equal by virtue of their common humanity, and, ideally, should be given an opportunity to realize their best selves.

Equality for All

Socialization implies a different type of equality—an equalization of society. Socialization tries to make everyone the same by providing equal goods and services to all. Absolute equality in social conditions can really exist only in a Communist Utopia. The struggle for security through government action means giving up our liberties and our freedoms. The government can make our lives free from risk only if it has the power and authority to control our actions. From socialism comes authoritarian rule. No matter how sincere the socialist might be in his devotion to democracy, it takes only a few years in office for him to become convinced that he knows what is best for the people. The conviction that people are foolish and that their wishes are unwise and should not be considered, is only a short step away.

Socialization is a step by step process, consisting of hundreds of small steps down a back road to socialism. We must decide whether to follow other nations into formal socialism or to maintain and improve the system of free enterprise which has given us the highest standard of living the world has ever known. The free market, under which the consumer ultimately governs and directs production, is the heart of our capitalistic system. Socialism would replace the free market by centrally planned and determined production. Day to day decisions are necessary regarding potentially socialistic measures.

More and More Federal Control

A progressive income tax of moderate range need not necessarily infringe upon the free market. But higher taxes that remove both investment and incentive funds, can quickly destroy private enterprise. Moderate welfare programs to tide people over rough spots could actually facilitate the activity of the free market. The same program increased to the point where they destroy the incentives of either the welfare recipient or the taxpayer, would have the opposite effect. Measures may be socialistic even though they do not immediately propose federal control of production. We must carefully consider each proposal or step to determine whether its ultimate effect will lead to weakening the free market and to nationalizing industry.

Socialization and increasing government controls can only tend to constrict the individual, to destroy his initiative, and to limit his freedom. It is interesting to note that there was once a group in our nation who possessed seemingly perfect social security. They had guaranteed employment for life. They were given free housing, free education, and free medical care. The great citizen whom I quoted earlier participated in a civil war brought about to grant these individuals freedom and equal rights.

In closing, I would like to mention that I am not a historian, a philosopher or a political scientist. Accordingly, I have not attempted to present you with factual data. Rather, my purpose has been to stimulate some thought—to ask questions, rather than to give answers. Our free society has generated anxiety, frustration and insecurity. Equality for all has resulted in social insecurity. There is an increasing trend toward socialization to cope with this. Are we not heading for the same type of state from which our forefathers delivered us those "four score and seven years ago?" ◄

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The Adult Psychiatry Clinic at Indiana University Medical Center: Services and the Patient Population

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THE ADULT PSYCHIATRY Clinic located at the Indiana University Medical Center is the training and service unit of the Department of Psychiatry for adult outpatient diagnosis and treatment. It is the largest general adult psychiatry outpatient facility in the state of Indiana.

The staff includes three psychiatrists, four psychiatrist consultants from the community, two clinical psychologists and a psychiatric social worker. Currently in training at the clinic are three second year psychiatry residents and two graduate social work students on field work placement.

Functions of the clinic are training, research and service. In order to carry out its training function, the clinic offers diagnoses, treatment, and consultation services to outpatients from various parts of the state of Indiana and to inpatients on referral from the adult medical, surgical and obstetrical wards at the Medical Center.

The team concept, which is employed during the diagnostic phase at the clinic, implies three relatively independent spheres of competency and functioning. The psychiatrist, trained in general medicine with specialty training in the diagnosis and treatment of emotional disorders accepts primary responsibility for each case. By means of interview, he establishes the developmental history and clarifies the presenting complaint and its precipitants. He also makes a clinical survey of the patient's immediate mental and emotional functioning.

The clinical psychologist, whose training is in normal and pathological behavior processes, is responsible for an objective assessment of the patient's current functioning and his potential. His work may also reveal latent pathology not clinically evident but of potential concern. Standardized psychological tests permit comparison of the patient's performance with that of various reference groups, both normal and clinical. Objective and projective psychological tests are employed in the assessment procedures. Noyes[1] describes many of the tests and procedures used by the clinical psychologist at the clinic.

The training of the psychiatric social worker equips him to appreciate and work with social problems of the individual patient and also the family and community units of which he is a member. Frequently, relatives of the patient are interviewed by the psychiatric social worker in order to clarify or supplement aspects of the patient's history. Later, if considered appropriate, relatives of the patient are referred to the social worker for collateral counseling. This is designed to assist the treatment goals for the patient.

Information from these three sources is integrated to make a comprehensive assessment. The decision is then made to offer

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treatment, to refer the patient to other more appropriate facilities such as a psychiatric hospital, a Family Service Association, etc., or to re-refer the patient to his local physician.

The Patient Population

1. *Referral Source and Sex.* Although clinic patients come from various parts of the state, most of them reside in Marion, Monroe, Delaware and Johnson counties. Table I reveals a steadily increasing total case load over the four year period from July 1, 1957 through June 30, 1960. In each of these years there has been a greater number of female patients than male patients.* Table I also indicates that the categories "Public Clinics and Health Agencies" and "Private Physicians and Clinics" are the chief sources of referral to the clinic. The sharp increase in number of referrals from "Private Physicians and Clinics" and the consequent decrease in referrals from "Public Clinics and Health Agencies" for fiscal years 1959 and 1960 is an artifact due to a change in the method of statistical reporting during those two years. From 1957 through 1960, these two categories have accounted for 84% of the patients referred to the clinic.

2. *Age.* In Table I, it can be seen also that a majority of patients who contacted the clinic in each of the four years were in the age category "30 years of age and above." Further analysis (not shown in Table I) indicates that over this four year period, 62% of the total patient population were within the age range, 21 to 44. In contrast to the usual pattern of females exceeding males in each of the four years, at ages 16 and 17 years, males consistently exceed females.

3. *Diagnostic Classification.* The range of psychiatric conditions seen at the clinic during these four years is represented in Figure 1 (including the legend of the figure). The nomenclature used is that of the

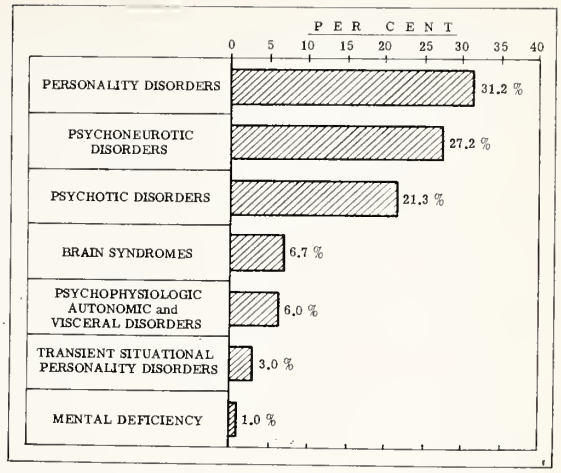


FIGURE 1

DIAGNOSTIC CLASSIFICATION of terminated cases at the Adult Psychiatry Clinic summarized for the four year period, 1957 through 1960. Percentages refer to the four year total of terminated patients, i.e., 1379. Without mental disorder (eight patients) and mental disorder undiagnosed (57 patients) are not shown.

Diagnostic and Statistical Manual of the American Psychiatric Association.[2] It is apparent that approximately 57% of the clinic patients were diagnosed either as having a personality disorder or a psychoneurotic disorder.† Twenty-one percent of the patients were diagnosed as having a psychotic disorder. Contrary to the overall trend, there were more males than females diagnosed as having a personality disorder.

4. *Treatment.* Upon completion of the diagnostic phase of the intake process, a decision is made concerning treatment. Most patients who are accepted for treatment are seen on a one hour per week basis in individual psychotherapy. The treatment philosophy at the clinic is an eclectic one. Cases treated by the psychiatry residents are regularly supervised by staff psychiatrists and by psychiatrist consultants from the community. The clinic holds a weekly diagnostic conference and a weekly treatment review conference.

When the totals for the four years in Tables I and II are compared, it is apparent that 28.7% of the total patient population seen at the clinic were taken into treatment. The reasons for this proportion are manifold. The nature and severity of

* California[3] also reports more adult female patients than adult male patients, and Texas[4] finds that adult female patients were seen in hospital clinics twice as frequently as adult male patients. However, national estimates tend to show a reverse trend.[5]

† This finding is consistent with the experience of Texas,[4] Wisconsin,[6] and Kansas.[7]

ADULT PSYCHIATRY OUTPATIENT CLINIC, INDIANA UNIVERSITY SCHOOL OF MEDICINE
Clinic Terminations by Sex, Referral Source and Age Groupings, for Fiscal Years 1957, 1958, 1959 & 1960

Source of Referral* and Sex	7/1/56-6/30/57 Age Grouping			7/1/57-6/30/58 Age Grouping			7/1/58-6/30/59 Age Grouping			7/1/59-6/30/60 Age Grouping		
	Total	16-29	30+	Total	16-29	30+	Total	16-29	30+	Total	16-29	30+
All Sources, Total	291	125	166	314	134	180	378	166	212	396	176	220
Male	124	55	69	131	67	64	158	69	89	185	85	100
Female	167	70	97	183	67	116	220	97	123	211	91	120
Self, Family, Friend, Total	8	5	3	7	4	3	23	11	12	35	16	19
Male	4	2	2	5	4	1	8	3	5	21	8	13
Female	4	3	1	2	0	2	15	8	7	14	8	6
Public Clinics and Health Agencies, Total	131	48	83	120	40	80	21	8	13	14	7	7
Male	51	19	32	50	18	32	12	4	8	10	6	4
Female	60	29	51	70	22	48	9	4	5	4	1	3
Public Welfare Agencies, Total	6	5	1	12	7	5	16	12	4	17	11	6
Male	1	1	0	9	6	3	7	6	1	14	10	4
Female	5	4	1	3	1	2	9	6	3	3	1	2
Private Physicians and Clinics, Total	123	51	72	150	68	82	292	120	172	302	123	179
Male	56	23	33	54	29	25	115	48	67	125	50	75
Female	67	28	39	96	39	57	177	72	105	177	73	104

* "School" (10), "Courts" (19), "State Mental Institutions" (29), "Private Welfare" (21), "Clergy" (10), and "Other" (14), are deleted as referral sources, but the cases for these sources during these four years are included in the grand totals.

TABLE I

the patient's illness, the degree of the patient's motivation for psychotherapeutic treatment, the distance of the patient's home from the clinic, etc., all play a part in the decision to offer treatment at the clinic. For these four years, patients with psychoneurotic conditions or personality disorders comprised 72.4% of those who were taken into treatment. These two psychiatric conditions are generally thought to be the most amenable to psychotherapeutic treatment.

Table II also gives us a picture of the duration of treatment. The median number of interviews for all patients in treatment over the four year period is 7.5 with an overall range of from one to 120 interviews. According to expectation, the completed cases (those patients who carried through with the treatment program) show a higher median number of interviews than the lapsed cases (those patients who for a variety of reasons were self-terminators).

In a subsequent article we will hope to make more concrete the routine procedures at the clinic—from the point of referral to the point of case closing, and to clarify details of clinic functioning by means of case discussions.

Summary

This article describes the functions, staffing and patient population of the Adult Psychiatry Clinic at the Indiana University

ADULT PSYCHIATRY CLINIC, INDIANA UNIVERSITY SCHOOL OF MEDICINE
Terminated Treatment Cases, 1957-1960, by Diagnostic Classification, Reason for Termination, and Interviews with Patients*

Classification and Reasons for termination	Total Cases	Interviews Med.	Range
All Diagnoses			
Total	406	7.5	1-120
Completed	162	12.0	1-120
Lapsed	244	7.0	1-61
Brain Syndrome			
Total	8	5.0	1-10
Completed	3	5.0	3-10
Lapsed	5	4.0	1-7
Psychotic Disorders			
Total	78	8.0	1-48
Completed	27	14.0	1-45
Lapsed	51	6.0	1-48
Psychophysiologic Autonomic and Visceral Disorders			
Total	16	5.0	1-47
Completed	6	11.5	2-47
Lapsed	10	4.5	2-34
Psychoneurotic Disorders			
Total	157	9.0	1-104
Completed	59	16.0	1-104
Lapsed	98	8.0	1-61
Personality Disorders			
Total	138	6.5	1-120
Completed	62	7.5	1-120
Lapsed	76	6.5	1-58

* Includes interviews with patient by psychiatrist, social worker and psychologist.

TABLE II

Medical Center. Statistics for the four year period, 1957 through 1960, are presented.

ACKNOWLEDGMENT

We wish to express our appreciation to Stewart T. Ginsberg, M.D., Commissioner of Mental Health for the State of Indiana and to the Office of Statistical Research of the Indiana Department of Mental Health for assistance in the preparation of the tabular material.

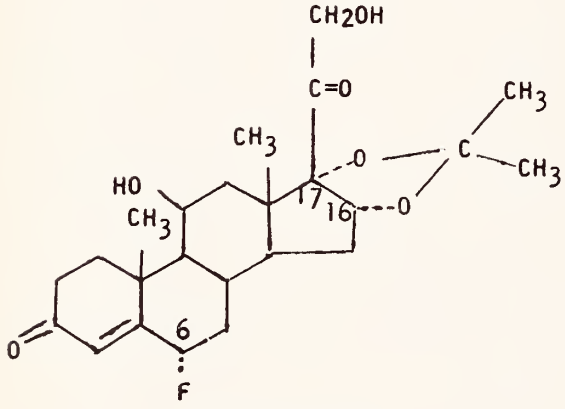
REFERENCES

1. Noyes, A. P.: *Modern clinical psychiatry.* Fourth edition. W. B. Saunders Co., Philadelphia, 1955.
2. American Psychiatric Association: *Diagnostic and statistical manual. Mental Disorders.* Washington, D. C., 1952.
3. California State Department of Mental Hygiene: *Community psychiatric clinics in California.* Annual report, Sacramento, 1958.
4. Texas State Department of Health, Division of Mental Health: *Mental health clinic services in Texas,* 1957-1958. Austin, 1958.
5. Bahn, Anita K., Norman, V. B.: First national report on patients of mental health clinics. *Public Health Reports.* 74:943-956, 1959.
6. Wisconsin State Department of Public Welfare, Bureau of Research and Statistics: *Wisconsin guidance clinics, 1959 data. Statistical Bulletin MH-19.* Madison, 1960.
7. Kansas State Board of Health, Division of Mental Hygiene: *Statistical report. Mental health centers and outpatient psychiatric clinics.* Topeka, 1956. ◄

Flurandrenolone— A New Topical Steroid

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TOPICAL STEROID OINTMENTS have long proved their value in the treatment of various dermatological diseases. They are constantly being improved upon. Consequently, newer and more efficient ones are now at our disposal. One of the newest goes under the name of flurandrenolone.**



Flurandrenolone

Flurandrenolone is 6α-fluoro-16α-hydroxyhydrocortisone 16, 17-acetonide. The substitution of an alpha fluorine atom for hydrogen at the steroid-6 position, addition of a hydroxyl group at the 16-position and formation of an acetonide linkage with 16, 17 alpha hydroxyl group increases the anti-inflammatory property of the flurandrenolone over that of the parent compound, hydrocortisone. At the same time, the salt retaining property of the parent compound is decreased.[1]

Special studies have shown flurandrenolone to be an effective agent, in very low concentrations, for the treatment of skin disorders. In experimental studies on 25 normal volunteer subjects, an 0.05% solution of flurandrenolone was more effective than one percent solution of hydrocortisone in the inhibition of erythema produced by the primary irritant, tetrahydrofurfuryl alcohol.[2]

Lack of systemic effect from topical application has been shown by Rostenberg and Fuller[3] who found no change in 17-ketosteroid Porter-Silber chromogen excretion nor a significant effect on urinary sodium or potassium excretion in five patients treated with 15 to 45 Gm. of flurandrenolone cream daily for periods up to 18 days.

Ridolfo, Gray, and Irwin[4] were also unable to demonstrate changes in plasma corticol or urinary 17-keto or 17-hydroxycorticoids in patients who were treated with 45 Gm. of flurandrenolone cream or ointment daily.

Clinically, the topical specificity of flurandrenolone was shown by Goldman[5] who treated infants with severe eczema by total body inunction twice a day. These children showed no clinical evidence of systemic absorption, such as edema, or untoward effects, such as secondary infection.

Clinical Study

Three different basic preparations (a hydrophilic ointment, a vanishing cream and a lotion) containing 0.05% flurandrenolone were made available. Neomycin was also available combined with the flurandrenolone

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** The flurandrenolone (Cordran and Cordran-N) used in this study was supplied through the courtesy of Dr. Anthony Ridolfo of Eli Lilly and Company.

CLINICAL RESULTS WITH FLURANDRENOLONE

Diagnosis	Total Cases	Good to Excellent	Partial Improvement	No Improvement
Atopic Eczema	18	14	3	1
Seborrheic Dermatitis	10	10		
Chronic Eczematous Dermatitis	11	5	4	2
Dermatitis Venenata	8	7		1
Nummular Eczema	10	9	1	
Stasis Eczema	3	2	1	
Hand Eczema	9	9		
Lichen Simplex Chronicus	2	1	1	
Polymorphous Light Eruption	1	1		
Dyshidrotic Eczema	2	2		
Folliculitis	5	2	1	2
Psoriasis	4	1	2	1
Lichen Planus	3		1	2
Herpes Simplex	2	1	1	
Parapsoriasis	1			1
Lichen Urticatus	1	1		
Acne Rosacea	1		1	
Pustular Acne	1		1	
TOTAL	92	65 (71%)	17 (18%)	10 (11%)

TABLE 1

in each of the three different type preparations.

A total of 92 patients were evaluated. Some of them used more than one type preparation according to the changing condition of their skin disease. When there seemed to be an element of secondary infection, the neomycin preparation was used. Sixty-three of 92 patients used the flurandrenolone with neomycin. All of the patients were ambulatory. The flurandrenolone preparations were used two to three times per day for a minimum of one week. Many patients have been applying the flurandrenolone ointment to their skin for over five months. The youngest to use the preparation was three months; the oldest 82 years.

Table 1 summarizes the clinical results with flurandrenolone. Other dermatological therapy such as compresses, antihistamines and oral antibiotics occasionally were used in conjunction with the flurandrenolone therapy. Many of the patients had been on previous topical medications including other steroid ointments. In many, a remarkable improvement was noted when switched to the flurandrenolone preparations.

The majority of patients treated had one or another variety of eczema. In this group the results were more spectacular than in the more chronic resistant dermatoses and in the papulosquamous group such as lichen planus and psoriasis.

None of the patients studied had any signs or symptoms of systemic absorption. None of the patients had any indications of local irritation or sensitivity.

Summary

In 71% of 92 patients studied, flurandrenolone preparations, with and without neomycin, were found to give good to excellent results in the treatment of various dermatoses. In 18% of the cases there was partial improvement and in 11% of the cases there was no improvement. There were no irritant or sensitivity reactions. Flurandrenolone preparations with and without neomycin are excellent preparations for the treatment of various dermatoses.

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BIBLIOGRAPHY

1. Mills, J. S.; Bowers, A.; Campillo, C. Casas; Djerassi, Carl; Ringold, H. J.: Steroids CXVII.

6a—Fluoro 16a—Hydroxy Cortical Hormones. *J. Amer. Chem. Soc.* 81:1264, 1959.

2. Gray, H. R.; Wolf, R. L.; Doneff, R. H.: Evaluation of Flurandrenolone. *AMA Arch. Derm.* 84:68-71 July, 1961.

3. Rostenberg, A., Jr.: Clinical Evaluation of Flurandrenolone, A New Steroid in Dermatological Practice. *J. New Drugs*, Vol. 1 (May-June, 1961).

4. Ridolfo, A. S.; Gray, H. R.; Irwin, G. W.: Absorption Studies of a New Steroid, Flurandrenolone. To be published.

5. Goldman, L.: Personal communication to Eli Lilly and Company. ◄

Smallpox in the United Kingdom

A smallpox epidemic started in December and resulted in at least 21 cases and 7 deaths. The disease was introduced by immigrants from Pakistan. Vaccination is no longer compulsory during the first year of life, nor is the vaccination of visitors and immigrants. The British Medical Association is urging the Ministry of Health to reintroduce the vaccination laws, which were repealed about 15 years ago, and make vaccination within the first 6 months of life obligatory. One of those who died was a 37-year-old pathologist who performed an autopsy on the first fatal case, a Pakistani girl. He was treated with a new drug, but this failed to save him.

It was observed that some isatin derivatives had a chemotherapeutic effect on mice infected with neurovaccinia virus. A few milligrams protected the mice against 100,000 lethal doses of the virus. A number of isatin derivatives were synthesized and screened for activity against vaccinia virus. N-methylisatin-β-thiosemicarbazone was the most effective. In a dose of 5 mg. per kilogram of body weight this was found to protect mice against 100 lethal doses of smallpox virus. As the therapeutic index of this compound was over 2,000, it was considered safe to give it in the present smallpox epidemic. Twelve contacts and a few smallpox patients have been given the drug experimentally. Since the pathologist that died had received the drug, it is possible that it has a prophylactic rather than curative value.

Another approach to the problem was made by Dr. Alick Isaacs, the discoverer of interferon, which prevents the vaccinial reaction of cowpox in animals. He inoculated 20 volunteers with cowpox vaccine on one arm who had also been inoculated with a mixture of cowpox vaccine and interferon on the other arm. If interferon prevents the normal vaccinial reaction, with the formation of pustules and erythema, Dr. Isaacs proposes to give it to smallpox contacts, with a view to stopping the spread of the disease. *JAMA*, April 14, 1962.

The Case of Gender: Dubious

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THE CANNY CLINICIANS classify their patients as being male or female; the grubby grammarians take in sauntering stride the third gender, neuter. Of course, busy practitioners do have occasion to encounter inter-sexuality; it is a definite clinical concept even if rather rare. However, Yetta Yersk presented many features that could be called *sui generis*, altogether unique.

It started out most casually. While touring the outpatient department, I was buttonholed by the medical resident. He had a problem, and my assistance was solicited on an altogether minor matter. The patient had come asking some pre-marital questions. She had denied any antecedent sexual contact; in such people a pelvic examination had to be performed under the supervision of an attending physician. Before entering the curtained cubicle, I was presented with the history taken and physical exploration done by the medical student.

It was an exceptionally exhaustive, meticulous compilation. In the welter of the usual, routine notations, several items caught my eye. Name: Yetta Yersk; born in Ravensbrueck concentration camp to a woman who had been subjected to the notoriously infamous "experiments" for which the chief culprits had been hanged subsequently. Year of birth: uncertain, either '35 or '36. The mother was supposedly Polish, probably Jewish although, possibly, Catholic.

As a child Yetta had memories of toiling as a slavey, first at Ravensbrueck and later at Dachau. She was starved on scraps and always cuffed around but never abused perineally. After the war, she was slated to go to Palestine. However, the question of her possible Catholic parentage arose and she lingered on in a Bavarian camp set up by the liberating American Army. She was well treated, decently clothed and even fattened up. Also, she got some schooling, acquiring the ability to read and write in English. She had become almost accustomed to the routine there but an opportunity to emigrate to New York was seized gratefully. She was housed in a Y.W.C.A. and trained for a job. This was most lowly work and paid very little; still she was content.

A Marriage Proposal

Rather recently, she had encountered a young man whom she had known many years before at Dachau! He had also been one of the few survivors of that harrowing experience. They had become quite friendly and he had proposed marriage to her. Yetta Yersk stated candidly that she had never had "any feelings" about men. She had never menstruated although she was now almost 25 years old. She had gone to a priest

for advice; he had suggested that she come to the clinic.

The general physical examination offered but little data. The student had noted the height at 57″ and the weight at 137 lbs. The observation was made that there was some downy hair on the cheeks and chin. The chest was stated to be broad and shield-shaped; the breasts were poorly developed and the nipples were very small. Heart and lungs were stated to be normal. The abdomen had a female escutcheon of hair; the liver, spleen and kidneys were not palpable; no hernias were present. There were no bunions but a hallux valgus was recorded bilaterally.

Having complimented the student on her history taking, we all trooped into the little examining room occupied by the patient. Garbed in the pastel-colored Mother Hubbard cover-all fashionable in our OPD, she was sitting quietly on a stool. The skirt, bra, sweater and panties were piled neatly on a shelf by the examining table. She sat erect, her hands lying primly on her lap; the fingers were spatulously short, the nails being cut straight across. The closely bobbed hair was perfectly straight and of a coarse brownish texture. The cheek bones had the typical Slav breadth and height; the nose was broad and upturned almost retroussé. The lips were thick; the teeth were large, surprisingly white but coming together with a feature-marring malocclusion; her slight smile at our entrance exaggerated this. Her brown eyes retained the residues of the fears that had haunted her past. That uncertain grimace revealed a great deal about Yetta Yersk: for all the world, I was reminded of a cornered bunny, uncertain of its reception, wanting to run yet knowing there was no place to hide.

After reassuring her as gently as I could, I asked her a few more questions. Incredibly enough, she seemed not too certain anent "the birds and the bees". How did she feel about Kurt? "A real, nice friend." Her English was passable but I pressed her further in German and in Polish; she seemed anxious to reply but her I.Q. was less than average—considerably less! "Kurt is real nice." He made her "feel real good."



Fears that had haunted her . . .

No! he never made any "passes" at her. Well, yes! He did kiss her a couple times. Did that thrill her? My question was not understood in three languages. . . .

The nurse got Yetta up in stirrups; I proceeded to the perineal inspection. The clitoris was markedly enlarged; the urinary meatus was at its very base—for all the world like a hypospadias. The labia majora had seemed normal enough but there was not a hint of an opening between the minor lips. The entire space was closed by thick, wrinkled skin strikingly reminiscent of a scrotal sac! Careful palpation clear up into the inguinal canals failed to reveal even a suggestion of an atrophic testes being present. Meticulous rectal palpation was entirely negative: no prostate was to be made out. Although the patient was permissively relaxed, my rather long fingers could feel nothing resembling broad ligaments or a uterus.

Cytogenetic Knowledge Advancing

The resident and the medical student had mute queries in their eyes. Luckily for me,

I had read quite recently several excellent articles on cytogenetics and so was as well primed as any non-worker in that rapidly developing field could be. It is only recently that we have made practical the technic of human cell cultures having their mitoses stopped in the metaphase. The use of colchicine has made possible a reasonably good mapping of human chromosomes. Much to everyone's surprise, homo sapiens happens to possess (when normal) only 46 and not the 48 chromosomes as we had been taught. The additional use of hypotonic solutions has made relatively easy a human duplication of the classic genetic studies first done with the fruit fly and corn these many decades ago.

To illustrate: we can now speak with relative confidence about an inherited disorder called originally, "mongolism"; now it has been re-named "Down's syndrome". It was Dr. Down who demonstrated that this most distressing disability is solely the result of disjunction of autosome #21; the unfortunate carrier of this anomaly has *47* chromosomes instead of the normal 46. It is expected that the biochemists will soon be able to demonstrate the precise order of the offending aminoacids. In the more simple case of sickling anemia this has been already accomplished.

Many previously completely baffling diseases are now beginning to be understood as being genetic errors: the RNA hereditary alphabet has lost an essential enzyme-making encodement for reasons awaiting clarification. Thus: phenylketonuria, certain bilirubin disorders, hemoglobinopathies produced by primaquine poisoning, non-tropical sprue, familial hemorrhagic glomerular nephritis, muco-viscidosis; defects of fat metabolism such as hypercholesteremic xanthomatosis, lipid granuloma, and hyperlipemia; diabetes, which is now classified as a Mendelian recessive trait; and variations in behavior and personality —the list is growing almost by the day.

Also that enormously complex topic of progressive muscular dystrophy—the eponym-studded jungle haunting the medical student venturing into the neurological maze—even this field is acquiring recognizable landmarks. Apparently, we have sex-linked recessive defects which manifest themselves at various ages and in varying extent of involvement depending on the intensity of error penetrance, non-disjunction and other biochemical anomalies revolving around the range of the cell membrane permeabilities. We are only beginning to unravel the complex of actin and myosin in their roles of energy production as ATP, adenosine-tri-phosphatases. The faulty aminoacid sequence will be pin-pointed much sooner than most of us anticipate.

Already today a general practitioner might think it worthwhile to know that the ABO blood group is somehow a significant factor in the etiology of peptic ulcer. Today it may be esoterica to be told that dominant inheritance will produce Huntington's chorea in middle life. However, already today, it is *not* esoterica to know that a youngster has hereditary hypercholesterolemia. Much can be done by means of appropriate management to prevent the usual progression of coronary atherosclerosis that is the consequence of this transmitted recessive error.

Normal Female or Super-Female

With Yetta Yersk, it was obvious that the x-ray exposures to which her pregnant mother had been deliberately subjected had done the fetus no good at all. It is well known that sex chromosomes X and Y determine sex in the human species. All human ova contain an X chromosome; the sperm may have either an X or a Y. If, during fertilization, the egg encounters a Y carrying gamete, the resulting diploid set of chromosomes will produce a male. If X meets X, XX will create a normal female. A fancy way of saying the same thing is the statement that, "males are heterogametic while females are homogametic."

Occasionally, errors in chromosomal division can occur during the vital stage of converting diploidy to haploidy, i.e., the stage of meiosis during which the chromosomal number is reduced from 46 to 23 in each of the daughter cells. As we have just explained, *normal* meiosis results in an X in each ovum and either an X or a Y in each

sperm. But x-rays are notorious for mutation induction: the very problem of fall-out that haunts us today. These can occur even "normally"; it might have happened to Yetta Yersk even without her mother having been exposed to the deadly x-rays for a matter of "experiment." Nevertheless, things *did* go wrong right after Yetta Yersk was conceived. There is the phenomenon of NON-DISJUNCTION: an XX fails to split. What then? Well, one ovum will have both the sex X chromosomes while its bereft partner will have none at all (we mark these O). When such ova are fertilized by an X carrying gamete, we get either the triplex XXX or the O. The XXX individual has been called the "super-female". Such a term is a mendacious misnomer as these unfortunates are pallid imitations of a normal female. They are sterile, have hypoplastic ovaries and menstruate, if at all, only for a scanty couple of years while still in their teens.

When the O ovum is fertilized we get the XO individual. This group has been well documented as the Turner syndrome. Because the fertilizing sperm had no sex chromosome at all, we have only the one X in the end product. This person phenotypically is a female with underdeveloped genitalia and an absence of most secondary sexual characteristics. Usually they have an increase in urinary gonadotropins and exhibit associated congenital anomalies such as neck webbing, short stature, cubitus valgus and a broad, shield-like chest. Some 80% of these patients are chromatin negative, i.e., smears taken from their buccal membranes do not show Barr's plano-convex mass at the edge of the cell membrane. Females are normally chromatin *positive* so that the presence of Barr's body is taken to be diagnostic of the feminine state.

Klinefelter Syndrome*

We should mention here another sex genetic error; I mean the one involving the male determining Y chromosome. Its absence is labeled O; that is how XO produces the Turner syndrome just sketched. XY is the normal male. However, the double X, i.e., the XX egg can be fertilized by a Y sperm to produce the XXY person, the Klinefelter syndrome. The members of this group are phenotypic *males*. This male appearance is associated with sterility, testicular atrophy, gynecomastia, hyalinization of the seminiferous tubules and an over-all endomorphic sub-par maldevelopment. Interestingly enough, from 50 to 80% of these people present a chromatin *positive*, i.e., female buccal smear.

This digression into cytogenetics did not go through my mind in that order as I went out of the cubicle. The resident and the medical student accompanied me as we left the patient's hearing while she was given a modicum of privacy to get dressed. I did ask my companions whether they had seen the latest teaching film on the syndromes I had just discussed. Dr. McKusick's 30 minute 16 mm. film, with sound, is put out through the courtesy of the National Foundation; it is excellent. I also asked them whether they had read the work relating to the adreno-genital syndrome; this is a field that is being explored in depth by many contemporary workers. The steroids of the adrenal gland can have certain very interesting, genetically produced effects. Thus a block in hydroxylation at the C_{21} position results in virilizing adrenal hyperplasia either with or without salt loss; a block in the subsequent hydroxylation at the C_{11}

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*Eponyms induce in me violent allergic reactions which must be shared by many members of my long-suffering profession. "Acute rheumatic fever" is much more descriptive than Bouillaud-Sokolovsky syndrome.

Most respectfully, may I suggest that the argument between "mongolism" and Down's syndrome is rather pointless. Why not define the condition precisely as Autosome #21 Trisomy? It is pithy and to the point.

Similarly, rather than talk about Turner's syndrome why not describe the genetic error as the XO mutation? It could not be shorter and certainly is as exact as we know of now. The 45 chromosomes could be included by calling this the 45 XO but it is not really necessary.

And the Klinefelter syndrome could be delineated as 47 XXY error; would this be wrong? Would not all of us gain from such more scientific precision?

position produces the virilizing *hypertensive* state.*

It was clear that with Yetta Yersk (who was normotensive) we did not have to worry about these latter items. I did request the resident to obtain a buccal smear from the patient. Also, I suggested a 24-hour urine specimen for the purpose of getting an idea as to the gonadotropic output. There was an additional point that—to me—seemed very vital, indeed. Could Miss Yersk, ah, bring her fiancé with her the next trip to the clinic? There was the socially crucial important problem of determining just what type of an individual Kurt was. In the back of my mind, an idea was taking form; I wanted to examine Kurt myself.

All this was done; the buccal smears on Yetta as well as her urine analysis were available within the week on the day she and her Kurt returned to the clinic. I made it my business to be there. Surprisingly, the urine contained a very *high* normal quantity of gonadotropins while the buccal smear was Barr *positive* (the other 20% of Turner syndrome cases?) . . . .

Her companion was most interesting: tall, pallid, puny—I found a pretext to examine him. Not to my surprise, he was the very epitome of the classical Klinefelter syndrome!!

To Tell or not to Tell . . .

Here was satanic satire, indeed. Before me there were the XXY and the XO inquiring, in all innocence, as to their marital prospects! Self-liquidating, sterile, impotent mutants—results of disastrous, criminal, Nazi geneticists' "experimental" tinkering. Could it be possible that I was looking at an adumbration of the freaks that would ephemerally blossom after mutually annihilating atomic blasts had swept the normal people to their lethal endings?

* For those so inclined, recommended reading would include: "The Metabolic Basis of Inherited Disease" Stanbury et al., McGraw-Hill Co.; "Lipids and Steroid Hormones in Clinical Medicine" Sunderman-Lippincott; "Review on Chromosomes" . . . Arthur Sohval *Am. J. Med.* Sept. 1961; Vol. 31, #3, p. 397 on.



Geneticists' "experimental" tinkering

Yet Kurt and Yetta Yersk were at least self-supporting on a level acceptable to them. They were less than bright; their needs were so readily satisfied; it took so little to make them happy. Was it my duty to tell them the famous Mark Twain quip about mules: "No pride of ancestry, no hope of posterity" . . . . These two had been treated by life with mordant mockery; they had found each other; together they had a prospect of having a crumb of comfort and even joy that had been denied to them previously. True, there was no question whatever of marital consummation. The cold physical facts erected the "diriment impedimentum" so dear to the theologian. Were a priest aware of the facts, would he consecrate rites between two individuals who were *probably* of the opposite sex? If I were to apprise him of the situation, would he insist that laparotomies be performed to ascertain beyond cavil which gonad was which? Or, whether there were not true hermaphroditism, an ovo-testis, present in either or both? And if intersex was the histological fact here—did that bar the genuine affectionate friendship that was obviously present?

Also, what of the basic tenet of the physician-patient relationship? Anything I had learned was mantled as a confidence that could not be divulged to anyone. It was also a fact that the two people sitting before me just did not have the intelligence to grasp the ramifications of the pathways my reflections were treading. Did I have to be an officious Paul Pry? The day of Orwell's "Big Brother" of 1984 was not here yet—not in these United States of ours, anyways.

Rather gravely, I made a note on the chart of Yetta Yersk, "in reply to the question as to child bearing—the answer is 'impossible for physical reasons' . . ." Gently,

I read this aloud to them both. Kurt's examination went unrecorded. As they were leaving, I shook their hands and wished them well.

That evening, I did some extra reading on cytogenetics; if only some of the leaders on both sides of our assorted curtains could have been looking over my shoulders. . . .

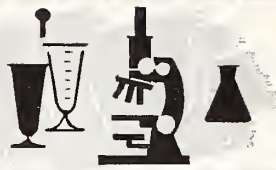
1270 Fifth Ave.,
New York 29, N.Y.

From *The Journal* Fifty Years Ago

This is the season when the annual toll is paid to the grim destroyer, typhoid, and while it probably is too late to say "boil the water and keep out the flies" yet it becomes the duty of every physician who is called on to treat a case of typhoid to tell the afflicted family and everyone who will listen to him that typhoid comes from drinking and eating filth. Many of the summer resorts, and in particular the summer resort hotel or boarding house, are disseminators of typhoid through unsanitary management. The contamination of the sources of water supply with human excreta, or the close proximity of privy vaults, with their access to flies that travel from the vaults to the kitchens and dining rooms, are the principal sources for the development of typhoid, and when we note the carelessness and indifference of many people to the precautions which should be taken to preserve our esthetic taste as well as preserve our health we wonder that there are not more cases of typhoid and bowel trouble. The members of the medical profession profit by the sins against the laws of health, but they are altruistic enough to want to prevent disease as much as possible, and that is why the public should be informed concerning the manner in which typhoid is contracted and the means of prevention.

Editorial, *JISMA*, August, 1912. (Albert E. Bulson, Jr., B.S., M.D., Editor and Manager.)

Path-finder
PUBLISHED UNDER THE AUSPICES OF THE INDIANA ASSOCIATION OF PATHOLOGISTS



Gastric Function Tests

WEI-PING LOH, M.D.*
Gary

THE STOMACH NOT ONLY serves as a transient food reservoir but also provides some initial digestive action, especially on proteins. Nearly all gastric functions are performed in the presence of gastric juice which is secreted by the gastric mucosa and consists of free hydrochloric acid, combined acids, digestive enzymes, intrinsic erythropoietic factor, inorganic salts, mucin, water, etc. There are many gastric function tests. The principal tests may be divided into four main groups:

Group I. Examination of the physical characteristics of the gastric samples.

1. Macroscopic examination.
2. Microscopic examination.

Group II. Tests designed to measure acids in the gastric sample or samples.

1. Fractional gastric analysis for free hydrochloric acid and combined acid.
2. Neutralization test.
3. Tubeless gastric analysis for free hydrochloric acid.
4. Detection of lactic acid.

Group III. Test designed to measure the adequacy of intrinsic erythropoietic factor (Schilling test).

Group IV. Tests designed to measure the digestive enzymes.

* Chief Pathologist, Methodist Hospital of Gary; Asst. Professor of Pathology, Chicago Medical School.

Group I.

1. *Macroscopic examination of the gastric samples.*

In routine gastric analysis the patient receives nothing by mouth for 12 hours. A gastric tube is introduced into the stomach and the entire fasting specimen collected. Gastric secretion is then stimulated by giving the patient an alcohol meal or a subcutaneous injection of histamine (0.3-0.5 mg of histamine base) or Histalog (50 mg) for maximum stimulation. Other stimulants and test meals are less popular. Histalog is generally preferred to histamine because of less side reactions to the former. As much stomach contents as possible are aspirated every 15 minutes for one hour following the stimulation. A 5-10 ml sample of aspirate is reserved for testing.

Five samples, including the fasting specimen, are thus collected for examination. Macroscopic examination of the samples is conducted with emphasis on the following physical characteristics:

a) appearance.
b) volume.
c) odor.
d) mucus.

A normal gastric sample is clear, colorless, pale gray or slightly yellow, odorless or slightly sour, free from food particles and contains a small amount of mucus.

2. *Microscopic examination of the gastric samples.*

Microscopic examination provides qualitative and quantitative measurements of the normal as well as the abnormal constituents of the gastric samples. The latter group includes erythrocytes, leukocytes, tissue fragments (such as meat fibers), bacteria and parasites. The microscopic examination may also include identification of tubercle bacilli and cytologic study for detection of malignant cells.

The normal gastric sample should be free from all the abnormal constituents mentioned above. Red blood cells in small numbers have no pathologic significance, because trauma to the gastric mucosa from the gastric tube may account for their presence.

Group II.

1. *Fractional gastric analysis for free hydrochloric acid and combined acid.*

Each gastric sample is titrated against 0.1 N sodium hydroxide solution, first to pH 3.5-4.0 for the free acid and then to pH 8.5-9.0 for combined acid. The degree of acidity is expressed as the number of milliliters of such alkaline solution required in the titration of 100 ml of the gastric sample to the specified pH. If pernicious anemia is suspected, the patient should always receive the most potent gastric stimulant in the form of histamine or Histalog in the fractional gastric analysis.

A. *Normal:* Normal fasting specimen contains 0-30 degrees of free acid, the amount of which generally depends on the age and sex of the individual. Following an alcohol meal, maximum free acid may reach 97 degrees (usually around 70 degrees) and the average free acid is around 50 degrees. Following histamine, maximum free acid may reach 160 degrees and the majority is between 80-130 degrees. Peak of the acid secretion usually occurs between 20 to 60 minutes after beginning stimulation. Combined acid varies from 4 to 20 degrees. Free acid is normally low or absent in infants and elderly people. Average values are higher in men than in women.

B. *Hyperchlorhydria:* This is seen commonly with duodenal ulcer, frequently with gastric ulcer and occasionally with early gastritis, cholecystitis, cholelithiasis, in neurotic individuals and in heavy smokers. Late chronic ulcer may give a decrease in hydrochloric acid due to the associated atrophic gastritis.

C. *Hypochlorhydria* occurs in gastric carcinoma, chronic gastritis, microcytic-hypochromic anemia of women and during normal pregnancy. It is sometimes seen in gastric ulcer. Localized and early gastric carcinoma may not give any decrease in acidity.

D. *Achlorhydria* following histamine stimulation is usually associated with pernicious anemia and sometimes with sprue, pellagra, advanced gastric carcinoma, chronic gastritis, exophthalmic goiter, over 30% of people over age of 60, normal individuals on rare occasions, etc.

2. *Neutralization test.*

This test has become less popular in recent years. It measures the neutralizing power of each gastric sample and indirectly measures the free acid originally present in the gastric sample.

Normal: The free acid begins with a maximum of 130 degrees and this drops to 40 degrees or less in one hour or so.

Duodenal ulcer: The acidity falls slowly to 70 degrees or more after 3 to 4 hours.

3. *Tubeless gastric analysis for free hydrochloric acid.*

In conventional gastric analysis the passage of a gastric tube even of the improved plastic type can be distressing and is contraindicated for some individuals. The tubeless method, commonly known as "Diagnex" test, offers a solution of reasonable satisfaction under those circumstances. The test is carried out by the ingestion of an indicating cation exchange resin containing quinine.

If free hydrochloric acid is present in the stomach, the H+ ion of the hydrochloric acid will displace the quininium cations on the resin. The quinine so released is absorbed and can be detected in the urine by

GASTRIC TESTS IN VARIOUS STATES

CONDITION	Fasting Gastric Juice				HCl after histamine	Cytology*	Schilling
	Appearance	Volume	Free HCl	Lact. Ac.			
Average normal	clear, pale grey	30 ml	5-25 degrees	—	80-160 degrees	232 cells 84/16	—
Duodenal ulcer, or early gastritis	clear or slightly cloudy	60-70 ml	28 degrees	—	high	362 cells 77/23	—
Gastric ulcer	clear or slightly bloody	45 ml	variable, can be low	—	variable, can be low	425 cells 68/32	—
Pyloric obstruct.	cloudy, food particles	100 ml or more	high	+	high	1040 cells 67/33 bacteria, tissue, etc.	—
Chronic gastritis (atrophic)	clear, or slightly cloudy	small	low, less than 25 degrees	—	low	1812 cells 60/40	—
Pernicious anemia	clear	small	absent	—	absent	PA epith. cells?	+
Advanced gastric carcinoma	cloudy, blood & necrosis	vari-able	low or absent	+	low or absent	2455 cells 64/36 Malig-nant cells	±

* Cytology expressed in average cell count per cu. mm. and epith. cell/leukocytes ratio.

TABLE 1

suitable technics. Recently the quinine was replaced by azure A as the indicator and the results can be obtained with a simple color comparator block. The tubeless method is safe and highly accurate. However, there is no apparent quantitative relationship between the tubeless technic and the conventional tube technic.

Normal: Free acid is present. Exceptions have been mentioned previously under achlorhydria.

4. *Detection of lactic acid.*

Lactic acid is not present in normal gastric contents. It may be introduced with certain food or be produced in the stomach through fermentation of carbohydrates by Boas-Oppler bacilli, especially when the emptying of the stomach is delayed or the secretion of hydrochloric acid is low. Therefore, the presence of lactic acid may indicate pyloric obstruction or advanced gastric carcinoma.

Group III

Test designed to measure the adequacy of intrinsic erythropoietic factor (Schilling test).

Proper absorption of vitamin B-12 depends on the adequacy of intrinsic erythropoietic factor which is secreted by the gastric mucosa. In this test procedure the patient is given orally a dose of radioactive cobalt (Co-60) labeled vitamin B-12. A 24-hour urine specimen is collected and the radioactivity of the specimen measured. Should the specimen contain less than eight percent of the administered dose (in terms of radioactivity), the patient probably has deficiency of intrinsic erythropoietic factor or malabsorption. In order to confirm such deficiency the patient is then given intrinsic erythropoietic factor orally together with the Co-60 labeled vitamin B-12. A significant increase in urinary radioactivity would then mean that the intrinsic erythropoietic factor is originally inadequate or deficient.

Normal: There should be at least 10-12% of the administered dose of the Co-60 labeled vitamin B-12 excreted in a 24-hour urine specimen.

Group IV

Tests designed to measure the digestive enzymes.

Normal gastric juice contains pepsin which acts on proteins, rennin which coagulates milk and small amounts of lipase which acts on fat. Gelatinase has also been identified in the gastric juice. All these enzymes can be determined both qualitatively and quantitatively. Since they are not as important as those in the intestinal tract, these enzyme determinations are of limited value. A well known test is the estimation of peptic power using egg white or hemoglobin. This test is no longer popular.

Insulin test and neutral red test for gastric secretory function have become less popular. Other gastric tests include determination of blood group substance (may or may not be present in the gastric juice), visualization of the stomach by means of x-ray, fluoroscopy, gastroscopy, and gastrophotography. Biopsy of a gastric lesion may be achieved through a gastroscope. It is beyond the scope of this paper to discuss these procedures in detail.

Summary

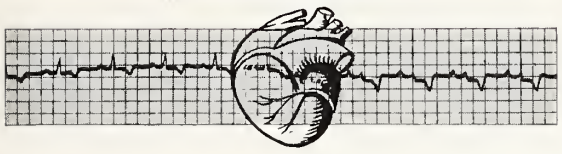
Gastric tests offer valuable information pertaining to the gastric functions. Usually the information thus gained can be significantly helpful when correlated with other clinical findings in enabling the physician to arrive at a sound diagnosis or assist him in treatment and prognosis. Important gastric findings in various states are summarized in Table 1. ◄

A Timely Warning

". . . We are no longer experts. We sit and sign forms. With no time to diagnose their diseases we pass our patients to other persons and to institutions knowing full well that these cannot dispense the health benefits which may or may not be needed . . ." "The essence of good doctoring is diagnosis, and diagnosis calls for time and a close-up with the patient, both of which are at the moment denied to thousands of practitioners . . . it also calls for two other things, things which concern the doctor personally—a feeling of satisfaction in the work that he is doing and a sense of economic security . . ." One cannot but admire the accuracy of Lord Horder's reading of the situation—and at that time it [N. H. S.] was only four months old. At the end of his speech he mellowed somewhat and despite the outlook proclaimed himself an optimist . . . "Medicine is so large and so enduring, whereas political parties and ministers are so small and so transient. We who are here are the custodians of medicine for our patients. Let us look to our charge. At this moment it needs all our vigilance and all our care."

Excerpts from a speech by Lord Horder in 1948 at the Inaugural Meeting of the Fellowship for Freedom in Medicine.

Electrocardiogram of the month



Presented as a regular feature of The JOURNAL, Electrocardiogram of the Month is a series of short talks on cardiovascular diagnosis and treatment, edited by the staff of the Robert M. Moore Heart Clinic of the Marion County General Hospital, Indianapolis.

Patterns Simulating Myocardial Infarction

*CHARLES FISCH, M.D.**
Indianapolis

THE STRONGEST EKG evidence of myocardial infarction is the evolution of a Q wave. In fact the appearance of this wave is equated, almost automatically by many, with myocardial infarction. Notable exceptions to this rule are patients with severe emphysema and cor pulmonale and individuals with various forms of myopathy. Two examples of the latter are presented in this communication.

Case Reports

The patient was a 27-year-old male admitted to the hospital with a history of upper respiratory infection followed by fever and subsequently all the classical symptoms and findings of left ventricular failure (Figure 1). On admission he was found to be critically ill with obvious congestive heart failure. A diagnosis of viral myocarditis was made and this was ultimately confirmed at autopsy. The EKG taken on 4-16-62 was interesting in that it showed absence of R waves in V1, V2, V3 and V4, a pattern compatible with an antero-septal myocardial infarction. A repeat tracing recorded on 4-18-62 showed no change in precordial leads (not shown here) but a rather striking change in duration of QRS and orientation of axis in frontal plane with appearance of deep S waves in leads II, III, AVF and an R in AVR and AVL. The shift in axis was to the left and superiorly. This type of axis deviation has been shown to result almost always from myocardial disease rather than from simple positional change.

The patient was a 21-year-old college student admitted to the hospital with classical findings of progressive muscular dystrophy, cardiomegaly and left ventricular failure (Figure 2). The cardiogram recorded on 6-9-62 shows atrial flutter (lead V1) and absence of R waves in V1, V2, V3, V4 and V5. This pattern is compatible with anterior myocardial infarction. The resemblance to Figure 1, especially when compared with frontal leads of tracing recorded on 4-18-62, is rather striking.

* From the Robert M. Moore Heart Clinic, Marion County General Hospital and the Indiana University School of Medicine.

Supported by the Herman C. Krannert Fund of the Indiana Heart Association and the Indiana State Board of Health.

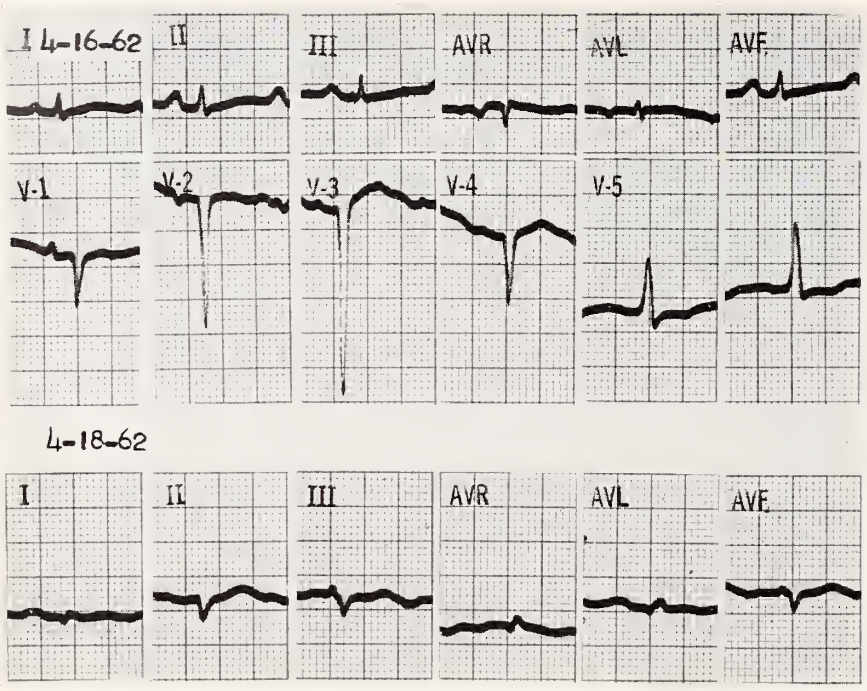


FIGURE I

TRACING OBTAINED during acute viral myocarditis showing the QS pattern in V1-V4 compatible with myocardial infarction. For details see text.

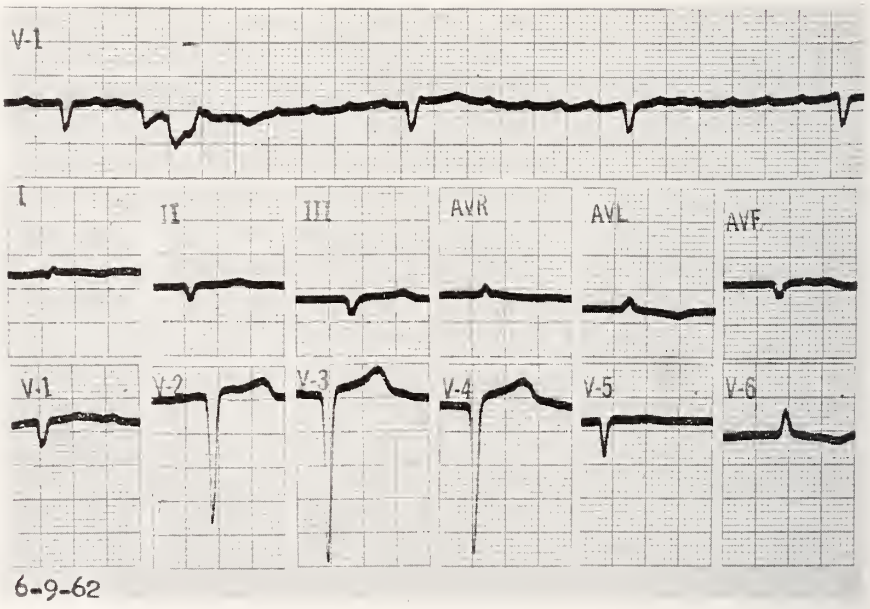


FIGURE II

EKG OBTAINED from a patient with progressive muscular dystrophy. Note the QS pattern in V1-V5 compatible with myocardial infarction. For details see text.

LABORATORY MEDICINE

Published periodically as a review of clinical laboratory procedures suitable for laboratories with minimal equipment.

Myeloma Proteins

A. WENDELL MUSSER, M.D.*

URINE LENDS ITSELF quite well as a a useful biologic fluid in definitive diagnosis as well as in screening procedures. Newer technics of analysis and isolation have made us more fully aware of the complex chemical composition of the urine. Often one encounters abnormal proteins other than albumin during a routine urinalysis. Differentiation of these proteins is often extremely useful in diagnosis and therapy of patients; thus, the obvious importance of the myeloma proteins.

Multiple myeloma, in addition to being a proliferation of malignant plasma cells, is also an abnormality in protein metabolism. Most of these proteins are present in the plasma and serum; some are concommitantly present in the urine.

Electrophoretically the serum proteins can be divided into four groups: albumin, alpha-globulin, beta-globulin, and gamma-globulin. Further work, using the electrophoretic principle of decreasing rate of migration in an electrical field, has revealed that the gamma fraction can be separated into gamma 1 and gamma 2. A similar separation is also noted for the alpha and the beta globulins. It becomes apparent that the gamma-globulin fraction is a conglomerate of many different proteins; this is true, to a lesser extent, of the alpha and beta fractions. Two types of patterns are commonly seen in multiple myeloma—the gamma type showing a decided increase in this area on the electrophoretic pattern; the beta type having a similar increase in beta area. Wuhrmann and Wunderly have reported a few cases of what they believe to be alpha types. M-protein, riding between the beta-2 and gamma-globulins, has also been reported.

Seven Irregularities Possible

In multiple myeloma laboratory evidence of protein abnormalities consists of one or more of the following: (1) hyperproteinemia associated with hyperglobulinemia, (2) abnormal globulin pattern of electrophoresis, (3) Bence Jones protein in the urine, (4) abnormal urinary electrophoretic pattern, (5) macroglobulinemia, (6) pyro-

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globulinemia, and (7) cryoglobulinemia. Approximately 75% of the cases display an elevation of the serum proteins, primarily of the globulin fraction. Bence Jones protein is found in the urine of approximately 50% of the patients with multiple myeloma. The finding of Bence Jones protein is not definitely diagnostic of multiple myeloma.

Other abnormalities of the bone marrow, such as leukemia, may result in the presence of urinary Bence Jones protein. Bence Jones protein is often found in normoproteinemic myeloma. Accordingly, other diseases, such as lymphogranuloma venereum, kala-azar, sarcoidosis, granuloma inguinale, cirrhosis of the liver and collagen diseases, may result in abnormal patterns in the globulin areas.

Macroglobulinemia can occur as a primary disease. It can also be seen in multiple myeloma, cirrhosis, nephrosis, cancer, and congenital syphilis. A predominant increase of the S.20 component (large-molecule globulins with a molecular weight up to one million), as determined by ultracentrifugation, occurs in macroglobulinemia. The differentiation of macroglobulinemia must be made and this can usually be accomplished on clinical grounds. Macroglobulinemia may be diagnosed by the euglobulin dilution test (Sia test consisting of turbidity and precipitation upon the addition of a few drops of serum to plain water), viscosity measurements, and ultracentrifugation.

Viscosity measurements are important for the diagnosis of primary macroglobulinemia. When the clinical picture (usually an elderly male with general malaise, dyspnea, bleeding from mucous membranes, no bone pain, purpura, negative roentgenograms of bones except for generalized decalcification, anemia, thrombocytopenia and slight leukocytosis) and the dilution and viscosimetric tests are positive, the diagnosis may be established with a high degree of certainty. Confirmation of the diagnosis by ultracentrifugation will always be necessary.

Cryoglobulinemia is uncommon in multiple myeloma. These proteins precipitate upon cooling and redissolve upon warming. This finding suggests multiple myeloma, but it can also be seen in chronic lymphocytic leukemia, kala-azar, disseminated lupus erythematosus, rheumatic fever, bacterial endocarditis, lymphosarcoma, malaria, polyarteritis nodosa and rheumatoid arthritis.

Pyroglobulins have been described in a few cases of multiple myeloma. These proteins are precipitated at 56° C. Little is known at this time concerning the chemical composition of the pyroglobulin.

The urinary Bence Jones protein was the first abnormal protein discovered in multiple myeloma. Devine noted by doing amino acid analyses that there were several different Bence Jones proteins. Since the Bence Jones proteins are found in the urine and very little, if any, in the serum, the molecular weight must be much lower (approximately 36,000) than the other serum proteins. It also becomes apparent that the Bence Jones proteins from different patients are not identical. Since this protein occurs in the urine of approximately 50% of cases

DETECTION OF URINARY PROTEINS*

1. filter a fresh sample of urine
2. perform ring test with conc. HNO3
   - 3. if negative: Bence Jones absent
   - 4. if positive
     - 5. perform ring test with conc. HCl
       - 6. if negative: Bence Jones absent
       - 7. if positive, and if ring test with HNO3 is stronger than ST (+++) dilute to this concentration with fresh, normal, protein-free urine (negative ring test with HNO3)

8. acidify 5 cc. of original or diluted urine with 25% acetic acid to pH 5 (nitrazine paper) and let stand 5 minutes

9. if precipitate forms: Nucleoprotein present

10. filter clear through fine filter paper

11. warm filtrate (or unfiltered urine if 9. is negative) in water bath at 70° for 15 minutes

12. if urine remains clear: Bence Jones absent

13. if coagulum forms

14. heat same sample at boiling point 10 minutes, in water bath

15. if coagulum dissolves: Bence Jones present

16. if coagulum does not dissolve

17. add 0.1 cc. conc. HNO3 to each 1 cc. of sample, heat at boiling point 10 minutes

18. if coagulum dissolves: Bence Jones present

19. if coagulum does not dissolve

20. proceed with another sample of urine to 11.

21. centrifuge down coagulum

33. supernatant fluid

34. heat at boiling point 10 minutes

35. if coagulum forms: Heat-coagulable protein present

36. filter while hot, or if heat coagulable protein is absent, proceed

37. cool sample

38. add 0.5 cc. conc. HNO3

39. if precipitate forms: Proteose present

22. precipitate

23. suspend in 5 cc. protein-free, normal urine, add 0.5 cc. conc. HNO3, heat at boiling point 10 minutes

24. if precipitate dissolves: Bence Jones present

25. if precipitate does not dissolve: Pseudo Bence Jones present

26. filter while hot into test-tube partly immersed in boiling water bath

27. cool filtrate

28. if filtrate remains clear: Bence Jones absent

29. if precipitate forms

30. add 0.5 cc. 50% sulphosalicylic acid

31. if precipitate dissolves: Bence Jones absent

32. if precipitate persists: Bence Jones present

* M. Jacobson & L. R. Milner *A.J.C.P.* 14:138-149, 1944.

of multiple myeloma, a simple screening method would be useful.

Method

1. *Introduction*

Bence Jones protein is soluble in urine at room and body temperature. When the urine is heated to 40° C, a white cloud appears and at 60° C, a distinct precipitate forms. This precipitate disappears on boiling but reappears on cooling. Excessive amounts of acid or salt will prevent the appearance of the precipitate.

2. *Procedure*

Add approximately 10 ml. of urine to a test tube. Heat slowly in a water bath. Care should be taken that the bottom of the tube is not resting on the bottom of the water bath; this will result in uneven heating. Suspend a thermometer in the water bath. Check the temperature and appearance of the urine frequently, especially between the temperatures of 40° C and 60° C. If a slight turbidity occurs upon heating the urine to the boiling point, add a few drops of dilute acetic acid. Any phosphates that have crystallized will be dissolved. Formation of a precipitate at the boiling point is usually the result of albumin content. Boil the urine with a few drops of dilute acetic acid, filter rapidly, and repeat the test on the cooled filtrate.

3. *Reagents*

1. Acetic acid, approximately 10% aqueous solution.

Jacobson and Milner devised a flow sheet for the detection of urinary proteins. The chart is quite useful in differentiation of Bence Jones protein, pseudo Bence Jones protein, nucleoprotein, heat-coagulable protein and proteose. The chart is included below for sake of completion. The method is quite time consuming and complex and does not lend itself well to screening attempts; however, it is extremely useful for definitive confirmation of the presence of Bence Jones protein.

REFERENCES

1. Atamer, M. A., Dietz, A. A.: Alpha-2 type multiple myeloma. *J. of Lab. & Clin. Med.* 56:44-49, 1960.
2. Devine, J.: An Analysis of Bence Jones Protein. *Bioehem. J.* 35:433-445, 1941.
3. Hardy, S., Putnam, F. W.: Proteins in multiple myeloma. *J. of Biol. Chem.* 212:371-378, 1955.
4. Jacobson, M., Milner, L. R. The detection of urinary Bence Jones Protein. *A.J.C.P.* 14:138-149, 1944.
5. Jones, H. B.: On a new substance occurring in the urine of a patient with "Mollities Ossium". *Phil. Tr. Roy. Soe.*, London, pp. 55-62, 1847.
6. Longsworth, L. G., Shedlovsky, T., McAnnes, D. A.: Electrophoretic patterns of normal and pathological human blood serum and plasma. *J. Exp. Med.* 70:399-413, 1939.
7. Osserman, E. F.: Plasma-cell myeloma. *New Eng. J. of Med.* 261:1006-1014, 1959.
8. Putnam, F. W.: Plasma-cell myeloma and macroglobulinemia. *New Eng. J. of Med.* 261:902-908, 1959.
9. Putnam, F. W., Hardy, S.: Proteins in multiple myeloma. *J. of Biol. Chem.* 212:361-369, 1955.
10. Putnam, F. W., Miyake, O.: Proteins in multiple myeloma. *J. of Biol. Chem.* 231:671-683, 1958.
11. Putnam, F. W., Meyer, F., Miyake, O.: Proteins in multiple myeloma. *J. of Biol. Chem.* 221:517-528, 1956.
12. Putnam, F. W., Stelos, P.: Proteins in multiple myeloma. *J. of Biol. Chem.* 203:347-358, 1953.
13. Putnam, F. W., Udin, B.: Proteins in multiple myeloma. *J. of Biol. Chem.* 202:727-743, 1953.
14. Wuhrmann, F., Wunderly C.: *Die Bluteiweissborper des Mensehen.* Schwabe, publisher. Basel, 1947. ◄

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The English Exodus

A LARGE NUMBER of the newly graduated physicians in England emigrate to other lands and never practice there. The exodus is due in part or in whole to the dismal prospect of working under the National Health Service. At least several physicians who have practiced in England, have abandoned their work and moved elsewhere, because of their discontent with the National Health Service.

Some of the British doctors have come to the United States; and when they have established their practices have noticed an astonishing amount of difference and have been moved to express themselves on this subject in public.

One of these is Dr. E. Lloyd Dawe, who arrived in this country in 1955, and who expressed himself on the subject in an article in *Nation's Business* last year.

Dr. Dawe describes the National Health Service as an example of unbelievable waste, interference and bureaucratic regimentation. While practicing in London he paid government-imposed "fines" for prescribing medicine which non-medical officials ruled unnecessary. He spent long hours phoning hospitals in order to find one capable of admitting his emergency patients. He saw hospitals spend their appropriations for luxuries such as television sets and carpeting, when they needed necessities.

Medical practice became so intolerable that he came to the United States, received residency training, and is now practicing here. He warns that politicians who favor federal medical care in the U. S. are making the same promises and are uttering the same tranquilizing assurances that were heard in England 13 years ago.

Fines for prescribing expensive drugs are usually avoided, Dr. Dawe says, by sticking to the older preparations, and when a physician's judgment indicates a new and expensive and more effective medication the

financial threat of a fine usually wins since the doctor's income is barely large enough to support him and his family.

Dr. Dawe states that a physician must see approximately 100 patients a day to earn $4,000 per year. He has a friend in rural practice in England who also has a chicken farm to supplement his medical income. The farm returns more money than his practice.

Swamping of the practice with trivial or non-existent complaints, makes it necessary to refer most of the sick patients to the hospital because there is no time left to do a careful workup. Doctor's offices are full of "patients," so healthy they wouldn't be there unless it was free. Sick patients who ordinarily could be cared for in an office are crowded out, and must be sent to the hospital. Hospitals are so full that emergency patients are really lucky to find accommodations of any kind and at any distance.

Dr. Dawe is a psychiatrist. He is aware that the intent of the aged health care legislation now being considered here is to provide for citizens who incur large medical expenses. However, as a psychiatrist, he feels that elderly people should not be encouraged in dependency. He feels that it would be inadvisable to make them feel as though they were wards of the state or objects of charity.

To quote Dr. Dawe directly: "Existing legislation, enacted by Congress only last year, provides a program of care for needy aged who cannot afford the costs. But to encourage all the aged to give up their independence and become debit members of society, to receive doles regardless of need, could be a destructive influence on the older population."

Medical Care in a Fallout Shelter

ONE OF THE IMPORTANT considerations, not often mentioned, about life in a fallout shelter is the fact that the occupants will be separated from professional medical care, that is, except in the case of the shelter which shelters the doctor.

Of course, at present, the lack of fallout shelters makes any planning for non-professional medical treatment seem almost superfluous. Perhaps in the future enough of the population will decide that they are not radiation proof, to make it advisable to construct the shelters and stock them with some of the necessities for a few weeks' stay.

When and if this is accomplished, there will be a booklet prepared specifically for the purpose of training and instructing the average citizen in what he can do to treat injuries and illness during the time shelter existence prevents him from seeing his doctor.

A 60-page illustrated booklet prepared by Civil Defense and the Public Health Service, entitled "Family Guide—Emergency Health Care" has just been issued.

It is remarkably well written and illustrated and covers the field of emergency, acute and chronic conditions in a most complete manner. It also includes a few words of advice as to some of the essential items which will be required in a fallout shelter in addition to the medical supplies.

The American Medical Association has cooperated in its preparation, and a copy is being distributed to all practicing physicians. A campaign will be conducted by Civil Defense and allied medical organizations to train the general public in medical self-help.

Of Hogs and Humans

IN medicine, a bad treatment is almost certain to follow a mistaken diagnosis. Unrealistic, harmful laws are likewise apt to follow inaccurate statements about the conditions which these laws are supposed to correct.

This may well happen with pending legislation to control the prescription drug industry. It is a complicated, technical industry and even highly placed government spokesmen get the facts about it twisted a bit.

Not long ago, Secretary of Health, Education, and Welfare Ribicoff remarked that men, women and children should receive the same protection against the marketing of worthless drugs as do hogs, sheep and cattle. This made headlines in many papers, was repeated in a Presidential message to Congress, and undoubtedly created a strong public impression. The consumer could easily conclude that animals are protected by law against bad drugs and that human beings are not. But the facts are otherwise.

Medicines for animals and human beings alike are regulated by two sets of laws, one covering biological products such as serums and vaccines, the other covering nonbiological medications usually dispensed in the form of tablets or capsules.

It is true that for animals the Virus, Serum, Toxin and Analogous Products Act of 1913 prohibits the sale of "worthless" products, and that the specific word "worthless" is not used in the corresponding legislation relating to medicines for man. It is equally true, however, that the Act relating to human biologicals, the Virus, Serum, and Toxin Act of 1944, affords human beings every bit as strong protection. In this Act, the Public Health Service is given authority to insure "the continued safety, purity and potency of biological medicines." Moreover, the product must "effect a given result." It cannot, in other words, be worthless.

With respect to other medicines, both animals and humans are protected by *exactly the same law*—the Food, Drug, and Cosmetic Act of 1938.

Obviously, then, hogs do not receive greater protection than humans. This is the fact of the matter, and when the fact pertains to such a vital question as the public health, it is important to keep the record straight.

[Courtesy of G. F. Roll, Director of Public Relations, Smith, Kline & French Laboratories.]

Guest Editorials

Fences to Mend

DESPITE THE CHARGES that medicine should not concern itself with socioeconomic matters, it is more important than ever before that it do so. American physicians can no longer bury their heads in the scientific sand and thereby become oblivious to the forces bent on both discrediting the profession and seeking to control it. The attack is on, and we must fight back with deeds as well as words.

Government is striving for tax-paid medical care. If the government pays the bill, it will without any doubt control the services. Labor unions are finding it more advantageous to press for greater fringe benefits, such as medical care, which are not taxable, than to insist on higher wages, which are taxable. The unions mistakenly think doctors make too much money. They would like to abolish the fee-for-service type of care and supplant it with panel medicine. Paradoxically, while individuals think highly of their family physicians, public opinion is strongly against physicians collectively. Eventually, public opinion will determine whether private medical practice survives or bows to the control of non-medical pressure groups.

Physicians are dedicated to serve mankind. In former days they did so by their avid pursuit of scientific knowledge. Science is no less important today, but in addition, the modern physician must enlist social and legislative support in behalf of the public welfare.

Medical care for those who cannot afford to pay for it, control of infectious diseases, medical quackery, radiation control, and safe foods and drugs are only a few examples of the problems confronting physicians

in their efforts to safeguard the health of our nation.

The medical society's awareness of its own role in influencing legislation is not as recent as you might suppose. Sixty years ago, as seen in the *Transactions of the Medical and Chirurgical Faculty* of 1902, our state society recognized the need for supporting or opposing various items of legislation affecting the public and the profession itself.

Nevertheless, the medical profession was not as vocal as it might have been. With a singular scientific zeal, it permitted its professional fences to fall into disrepair. If it does not mend them now, morally, ethically, and legally, it is in imminent danger of being invaded by alien interests. We must slumber no longer, but fight while we still have something to fight for.

Charles F. O'Donnell, M.D., President
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of the State of Maryland

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Indiana Senior Citizens Not "Needy"

UP UNTIL MAY 1, 1962, a total of 733 needy aged citizens of Indiana had been accepted for "medical care only" under the old age assistance program of the Indiana State Department of Public Welfare.

Projecting this statistic on an annual basis one arrives at a figure of about 2,200 individuals—considerably under earlier estimates of potential usage at the time the new program became effective on January 1 of this year.

The fact that the figure is substantially under prior estimates provides additional evidence that Indiana's group of "senior citizens" is not in the distressed economic circumstance which advocates of the King-Anderson bill have claimed as one of their major arguments for adoption of the measure.

As a matter of fact the figure of 733 for the first four months provides additional substantiation for surveys by the Indiana State Medical Association which revealed that the state's aged population is, on the whole, in healthy economic condition and have no widespread need—or desire—for HR 4222 with its federal dictation and control.

The "medical care only" plan was adopted by the General Assembly in its 1961 session. The Legislature did not feel that it was in position at that time to fully implement the Kerr-Mills law but its action in expanding medical care for aged residents under the welfare program can be interpreted as adoption of the intent of Kerr-Mills.

Under "medical only", payment may be made by a county department of public welfare for medical care for an applicant for old age assistance who is financially able to meet his living expenses but whose income and resources, including health insurance benefits, are not sufficient to pay for necessary medical care.

Application for "medical only" should be made with the department of public welfare in the county in which the person is living and his need for medical care is established upon the recommendation of his personal physician.

The individual must be a citizen of the United States; must have attained the age of 65; must have resided in Indiana for at least three of the last nine years, the last year of which must have been continuous.

A person is entitled to have intangible personal property in which the cash value is no more than $350.00.

While a lien is placed on the recipient's property for the amount of medical care received, the lien is not enforced during the lifetime of the recipient nor against property occupied by a surviving spouse.

Joseph E. Palmer
Administrative Assistant, ISMA

Editorial Notes . . .

The national physicians' poll by *Modern Medicine* on health care for the aged showed a 'landslide' victory for Kerr-Mills as could be expected. However the results were interesting in the fact that what support King-Anderson mustered tended to be centered in New York state and environs, among teaching physicians and government doctors. Apparently if only those physicians who are actively engaged in private practice were to be asked the vote would be practically unanimous on the side of Kerr-Mills.

Lederle announces a new decrease in the prices of their broad spectrum antibiotics. The recent decrease together with other decreases which have occurred from time to time brings the current price to a little below 25% of what it was 14 years ago. Between 1949 and 1960 the Wholesale Price Index exclusive of farm and food products rose 26.7%. While antibiotic prices were falling 76%, the costs for raw materials rose at least ten percent. Wages rose more than 70%, utilities 80% and packaging materials 52%. Lower antibiotic prices have been made possible, says Lederle, by more efficient manufacturing processes, discovered through research financed by profits. Senator Kefauver please copy.

Jack Higgins of Indiana University School of Medicine has received a $500 scholarship to enable him to spend two months in a preceptorship with Drs. Powell and Adams of Chetek, Wisconsin. The scholarship is one of eight which Sears-Roebuck Foundation is awarding this year to junior or senior medical students to allow each one of them to spend two months with a doctor in a community which has constructed a doctor's office facility with the assistance of the Foundation. The Foundation has also announced the receipt of an application from Montgomery, Indiana, for consideration for construction assistance. Georgetown and Roachdale, Indiana are each building a two-doctor unit.

Seat belt sales for seven manufacturers have taken a zoom upwards during the past year. Sales increased by 33.8% in the four years 1957 to 1960, and then celebrated by a 66.2% increase in the first six months of 1961. Likewise the incidence of cars with multiple belt installations has increased. New Jersey officials found that there is a 40% increase in number of cars with three belts or more. These encouraging figures sound good, however, because of the low number of seat belts in use in 1957. After all this improvement only about three percent of cars are so equipped. Still room for improvement.

A new type of smallpox vaccine which can be stored in bulk, rapidly converted to individual-dose form, and may be kept in potent form for as long as 18 months has been developed. It is prepared from calf lymph in the same way as the standard vaccine, but is stored in a freeze-dried form. Standard vaccine is stored in liquid form and remains potent for about three months. New York City has contracted with Wyeth Laboratories for a five-million-dose stockpile of the new vaccine, enough to immunize everyone in New York City if necessary. Wyeth will be permitted to sell part of the vaccine to other communities if epidemics develop elsewhere. The new vaccine, called Dryvax, was developed under a $10,000 grant from the U. S. Army.

The Fort Wayne Veterans Administration Hospital has received a certificate for completing its operations in 1961 with a perfect safety record. The American Hospital Association and the National Safety Council conduct a hospital safety contest each year. VA Hospitals won first place in five of the eight groups in the contest. The Fort Wayne Hospital was one of eight VA hospitals, aside from the first place winners, receiving certificates.

Licensed physicians in the U. S. increased by about 4,500 in 1961. This statistic is arrived at by taking the number of physicians

who passed licensure examinations in 1961 (8,023) and subtracting the number who died in the same year (about 3,500). The overall failure rate for approved medical schools was 2.8%. Twenty-six approved schools had no failures among their graduates. While not a part of the licensing of physicians for practice, the activities of the Educational Council for Foreign Medical Graduates was also reported. The Council examines graduates of foreign medical schools to determine whether the graduates have an adequate medical education and whether they have sufficient command of the English language to enable them to participate in graduate training in U. S. hospitals. In 1961, 3,600 foreign medical graduates took and passed the examination abroad. More foreign graduates take the exam abroad now than take it in the U. S.

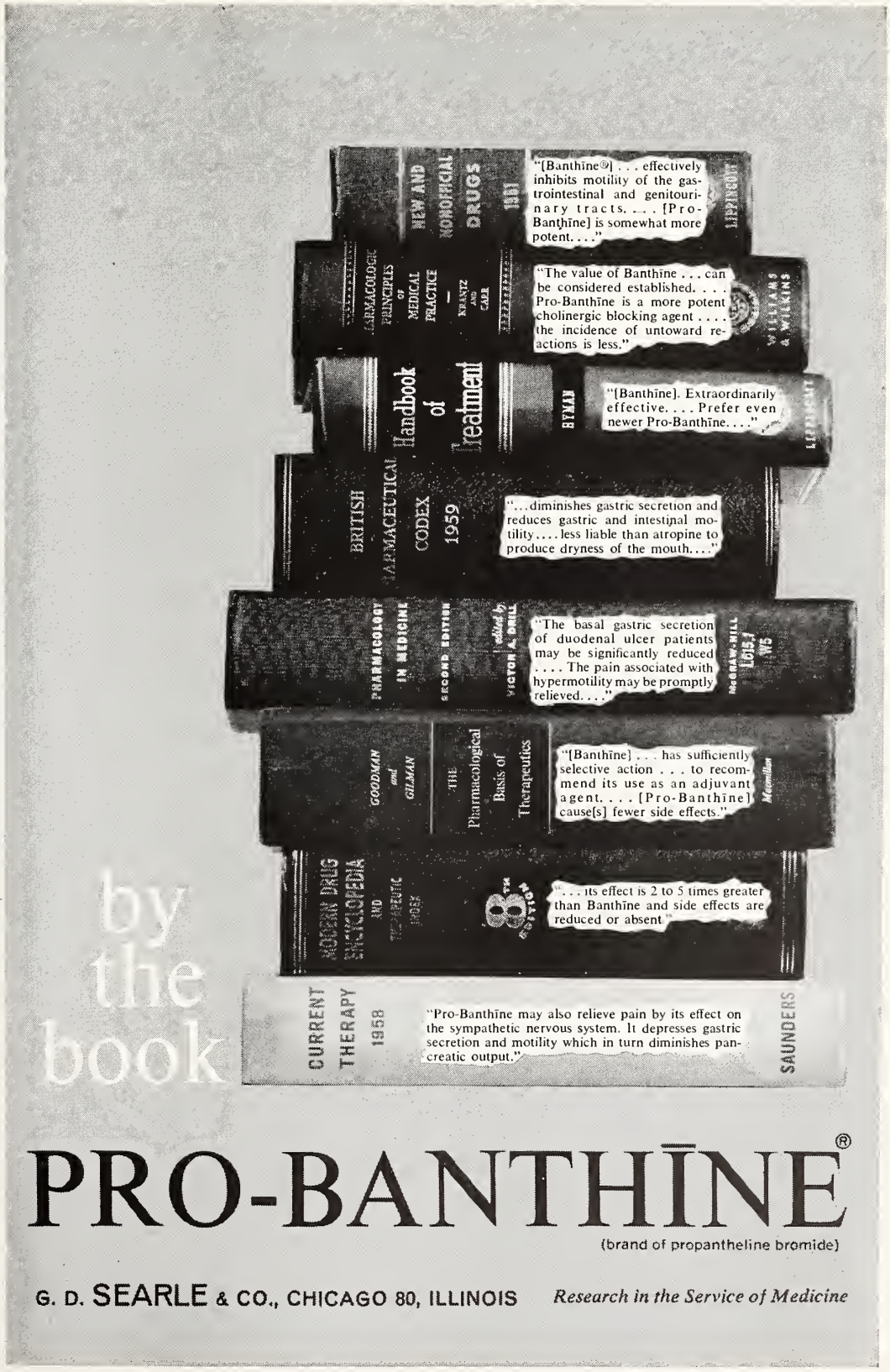
Medicine is not the only discipline which attracts scholars from foreign shores to the United States. Despite the fact that 8,497 foreign physicians trained here in 1961-62, medicine is exceeded in number of students by engineering, humanities, natural and physical sciences, social sciences and business administration. There was a slight decrease between 1960-61 and 1961-62 due probably to stricter standards in basic education for physicians who applied for training in hospitals. A total of 72,113 foreign persons were here for educational purposes last year, an increase of a little over eight percent. In medicine the Philippines contributes the most scholars—1,947—and Canada is second with 726. There are ten foreign countries, each one of which has over 200 M.D. trainees here. There are 11 U. S. hospitals training more than 50 foreign physicians each.

Patients may now carry a complete medical record in their purse. A commercial source will reduce up to four pages of medical data including electrocardiogram to microfilm and seal it in a plastic case of wallet-size for $2.00. The doctor's charge for assembling the data is the only additional cost. The device is called "Life Service Record", and is much more detailed and informative than the usual tags or bracelets. It is of use not only in emergency situations but also in routine transfer of care of a patient from one doctor to another in a distant location. Americans are a highly mobile race and becoming more so. Microfilmed records should have a bright future.

The Woman's Auxiliary to the American Medical Association presented a check for $244,172.00 to the AMA Education and Research Foundation in June, and gave the "Ethel Gastineau" trophy for the third time in a row to the Woman's Auxiliary of the Tennessee State Medical Association in recognition of outstanding service to this project. The Vanderburgh (Indiana) (Southwestern) Auxiliary was one of six county auxiliaries in the entire country cited for outstanding efforts.

The "ten-o'clock slump", the "four o'clock sag" and the late afternoon rise in traffic accidents is getting a scientific investigation in Los Angeles. The Candy, Chocolate and Confectionery Institute together with the Los Angeles Department of Water and Power is conducting a study of the effect of between-meal snacks of candy on the performance of truck drivers. The investigation is being conducted by accredited scientists and under controlled conditions. The results will be made available to the National Safety Council.

Dr. Austin Smith, President of the Pharmaceutical Manufacturers Association, in an address before the Idaho State Medical Association, warned of a new disease, "Washingtonitis". The disease, he says, paralyzes individual initiative, fosters a "let-the-government-do-it" attitude and leads to bureaucracy, public debt and governmental interference. As to complications of the disease, Dr. Smith says: "We have seen emerge a belief that business in general is irresponsible, that the professions and those who are scientifically trained are naïve, and that only the paternalism of growing armies of government agencies can lead us safely along the path with one hand while with the other hand they extract cash from our pockets to pay for the expedition." ◄



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A Special Challenge to A Specialized Industry

GEORGE R. CAIN
North Chicago, Illinois*

AT THE RISK OF appearing to be overly preoccupied with S. 1552 (the Kefauver-Celler Bill) it is reasonable to state that this proposed legislation presents a major challenge to the "specialized industry" that produces prescription drugs. The campaign for S. 1552 may have increased or abated by the time these comments are in print, but its significance should not be overlooked and its meanings should be exposed at every opportunity.

The hearings which preceded and accompanied the introduction of this bill have admittedly been a traumatic experience for the prescription drug industry. Radical changes have been proposed. This would be serious business if the bill applied to this industry alone. It becomes more serious when its implications reach into the business structure of the country as a whole and, what is vital to physicians, when they reach deep into traditional medical practice.

Some of the most controversial and potentially far-reaching provisions of S. 1552 concern the availability of drugs to the medical profession. Under the licensing provisions of the bill, the Food and Drug Administration would have the power to set standards that would keep from the market prescription drugs whose safety and efficacy could not be guaranteed. The proposed law would also enable the F.D.A. to ban the marketing of any new drugs not deemed sufficiently efficacious, to withdraw from the market already existing drugs for the same reason, and to withhold patents from drugs that do not possess "substantially greater" advantages over already patented related products.

On the surface this may seem plausible enough. Actually, it is highly toxic government medicine.

Government Control of Drugs

In practice, of course, the F.D.A. already insists upon evidence to support the claims made for the efficacy of new drugs on the ground that this bears directly upon the safe use of such drugs. In addition, the amendments providing for certification of antibiotics have expanded the power of the F.D.A. Originally put into effect to assure uniform potency of antibiotic batches, these amendments have been construed to "insure safety and efficacy of use," thereby giving the F.D.A. sweeping discretionary powers to prescribe the allowable uses of these drugs. Actually, the production problems that first gave rise to the certification amendments have long ago been solved.

If the pattern of the antibiotic practices were to be followed, then F.D.A. control over all prescription drugs would be unlimited. Present law requires a manufacturer to test his drugs to make sure that everything possible is known about them up to and beyond the time of marketing. This information goes to the physician. Then their use is up to individual and collective medical judgment. Under S. 1552, however, a government agency would decide which drugs are to be used in medicine, and what information goes to the physician. To place within an administrative agency such power

* President, Abbott Laboratories, and a member of the board of directors of the Pharmaceutical Manufacturers Association.

is to deprive the physician of his freedom of choice.

It is hardly surprising that Dr. Hugh H. Hussey, Jr., in his role as Chairman of the Board of Trustees of the American Medical Association, took exception to these proposals. His succinct conclusions are worth remembering:

"Medical history and experience clearly demonstrates that the only possible final determination as to the efficacy and ultimate use of a drug is the extensive clinical use of the drug by large numbers of the medical profession over a long period of time. . . .

"The patient's physicians must still be free to decide which drug will be most effective in the treatment of his medical problem. . . .

"A drug, which is on the average, less efficacious than another, must still be available to every physician since it may be completely efficacious in treating the medical problems of one of his patients. . . .

"We do not practice medicine on the average—we seek to solve or alleviate the problems of each and every patient. . . ."

This is the philosophy of American medicine, with its abiding concern for the individual.

The efficacy and licensing provisions of S. 1552 would appear to be based on the suspicion that pharmaceutical companies are creating and promoting useless drugs, and that physicians are prescribing them willingly for patients!

This would be not only reprehensible from a humanitarian standpoint but dismally bad economics. In actual practice, a pharmaceutical company simply cannot afford to spend time and money promoting drugs of little or no value—and still hope to stay in business. A drug that reaches the medical marketplace must work consistently in appropriate patients, or it will not be used enough to return the investment in research, development, production, and marketing. It is inconceivable that a company would want to market a drug that showed no evidence of efficacy.

Medical Freedom Threatened

The provisions on licensing and efficacy, then, from the viewpoint of industry, threaten traditional freedom in medical practice, a freedom that Congress previously spelled out by confining drug law to the prevention of unfair competition and fraud. After clearance for safety, no present law gives a federal bureau the right to regulate availability and use. This prerogative should continue to be the concern of the industry and of the physician.

In theory it can be argued that these proposed provisions could still work well if the responsible agency used exceptional wisdom, tempering caution with the realization that morally people should not be denied drugs of possible value in their particular ailments. To expect this kind of wisdom from any group, no matter how able or dedicated, is asking for an omniscience that does not exist, either in government or in private industry.

This industry believes there is no short cut to establishing efficacy; it can be determined only by long and painstaking physician evaluation. Under S. 1552, private responsibility would be abdicated, and an enormous and costly burden would be put upon a government agency. This responsibility has been capably handled up to now by physicians and associated organizations at no expense to government.

Related to efficacy is the S. 1552 patent section involving limitations on "modifications" and "combinations" of drugs. Even medical experts are confused by the vagueness of this provision, and many are alarmed, because it could have far-reaching effects in forestalling advances in such areas as toxicity, dosage levels, dosage forms, drug resistance, and higher costs. These restrictions could reduce the development of worthwhile related drugs. Incentive would be curtailed and secrecy encouraged. Without patent protection, so basic to new products, the dissemination of knowledge would be curtailed. Medical decisions would be the ultimate responsibility of the Secretary of Health, Education and Welfare, not that of physicians.

Computations from the staff of the Senate Subcommittee on Antitrust and Monopoly show the importance of patent protection to drug development and nullify its contention that patents are not much of an incen-

tive to the discovery of new drugs. In the era of modern drug therapy since 1940, according to these figures, countries *without* product patents made 41 new discoveries compared to 84 in countries *with* product patents. Even though only a few countries have patent protection, they have discovered twice as many drugs as the rest of the world.

Drug Research Curtailed

The efficacy provisions of this bill also threaten the scope of research, a factor of indirect but nonetheless vital concern to all physicians. Research costs today are high. The equipment alone for a major research effort runs into hundreds of thousands of dollars. A large pharmaceutical company requires hundreds of scientists trained in a score of different disciplines. Yet the odds are about 3,000 to 1 that any experimental compound will ever become a marketable drug.

If a government agency holds authoritarian control over efficacy, these risks are multiplied, primarily because any controversial drug might be rejected. Yet controversy involves many valuable medicinals that physicians surely would not want prohibited. After all, even aspirin and penicillin are toxic to some people.

It is a pleasant theory that by drawing a rigid line on drug "modifications" and "combinations" companies would then concentrate on really new substances. A reasonable proliferation of new products, some of them closely related, has time and again proved to be a stepping stone to new knowledge. In other words, we must also keep improving what we have, for this is worthwhile in itself and often leads, in addition, to further clues in various fields. Sometimes we must move by inches to gain yards.

If it becomes less profitable to take risks, as it would under S. 1552, smaller firms would be less inclined or less able to undertake serious research and more than ever, despite reduced incentives, research would be limited to the larger firms—or would go by default to government. The competition which this bill purports to encourage would far more likely give way to fewer companies sharing more of the market. While they might be competing price-wise, they would lose the incentive to compete through research for new products. Our world leadership in pharmaceuticals would thus be jeopardized.

Regulation of Advertising

In another far-reaching provision of S. 1552 the judgment of the medical profession would be bypassed through proposed regulations on advertising content. In general, this would require the publishing of voluminous detail about products, with the F.D.A. deciding what information a physician must receive. Existing law prohibits false or misleading advertising. This we support unreservedly. But we are opposed to having a government agency become the supreme arbiter of advertising.

Under S. 1552 industry costs could be raised exorbitantly. If Abbott Laboratories, for example, were to continue current advertising programs and meet every proposed regulatory obligation, our annual advertising budget would have to be increased by more than a million dollars.

Facts about drugs needed by physicians are freely available and widely disseminated now. The already expanding programs of the American Medical Association to provide impartial material makes it even more unnecessary for government to intrude into this area on the pretext that the job is now being done poorly. As Dr. Hussey has pointed out, "the continuing education of physicians is the primary responsibility and prerogative of the profession itself and associated groups."

No industry's advertising is perfect. It is the function of advertising to simplify, alert, remind, dramatize and illustrate. How well this is done depends upon viewpoints, upon varying levels of taste and sophistication. The recently retired Chairman of the Federal Trade Commission, Earl W. Kintner, who ought to be as well qualified as anyone to offer an opinion, said the "advertising field for the prescription drug industry stands as an example to other industries as the model of self-regulation and compliance with the law."

The pharmaceutical industry is opposed to S. 1552 because it is a threat to responsi-

ble private enterprise and to the freedom of the medical profession. The bill would not achieve its stated objectives. It contains concepts that are repugnant to democratic convictions and inimical to the progress of medicine and to the public welfare.

As law, S. 1552 would be a major victory for those who favor ultimate government control of all health care in the United States.

The pharmaceutical industry is certainly not against change. We believe in strong laws that assure the production and distribution of quality products. Physicians have every right to expect that they can prescribe with complete confidence. We believe in the highest standards for every phase of drug making. While we oppose compulsory licensing as a totalitarian technic, we would look with favor on the periodic inspection of all manufacturers to assure uniform quality and to keep substandard drugs off the market. Because we fully expect the F.D.A. to maintain its extensive responsibility for the marketing of new drugs, we favor an adequately staffed agency to keep check on the competence of the manufacturer and to safeguard the public. ◄

What's Needling You?

A 5,000-year-old Chinese medical practice is staging a phenomenal comeback in Europe, with skeptical modern doctors wondering if maybe the old sages didn't have something after all. Called *acupuncture*, the system assumes 12 body "meridians" carrying a flow of basic energy to the organs. If your toe hurts, the theory explains, it's because the energy flow has gone awry; to cure, stimulate the proper meridian with a silver needle. Surprising scientific find: The alleged meridian paths can now be traced (they have less resistance to electricity than other parts of the skin surface) and seem to correspond roughly with the autonomic nervous system. About 2,000 otherwise orthodox European doctors now practice acupuncture; France offers it on the national health service; Russians link it with Pavlovian conditioned-reflex principles. A few acupuncturists practice in the U. S., although the American Medical Association calls it a "counter-irritant of dubious value"—in the same category as mustard plaster and heat-inducing ointments. Reprinted from the May 21, 1962 issue of *The Insider's Newsletter*. Copyright © 1962 by Cowles Magazines & Broadcasting, Inc.

Teen-Age Marriages*

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Indianapolis

THE MODERN PROBLEM of teen-age marriages is causing considerable concern across the nation, particularly among those who deal with young people and more particularly among professional groups who must pick up the pieces of shattered lives which result from the jump from high school into matrimony.

Historically, teen-age marriage is not a new phenomenon. Over a century ago in both Europe and America marriage usually followed close on the heels of puberty, but early marriage in the pre-Civil War period took place in a vastly different milieu than it does today. For most of the population, adequate educational preparation for life involved a speaking acquaintance with the three R's—easily acquired before puberty set in. For boys employment was almost predestined by the employment of their fathers or the limits of a few vocations in the small communities in which most people lived. For girls there was no choice of vocation. It was either early marriage with a circumscribed role as wife and mother or spinsterhood.

The older, wiser and less romantic heads of the parents and grandparents were involved both in the process of mate selection and in early marital education. Marriage was consummated in a culture where age had considerable status which granted parents some rights in mate selection. Travel and vocational limitations placed the young married couple in the homes of their parents or at least within arm's reach in the immediate vicinity. Advice was given by the old and received by the young. To both the young and old the process of mate selection and working out the problems of early marriage were extremely serious matters because divorce and disgrace were synonymous.

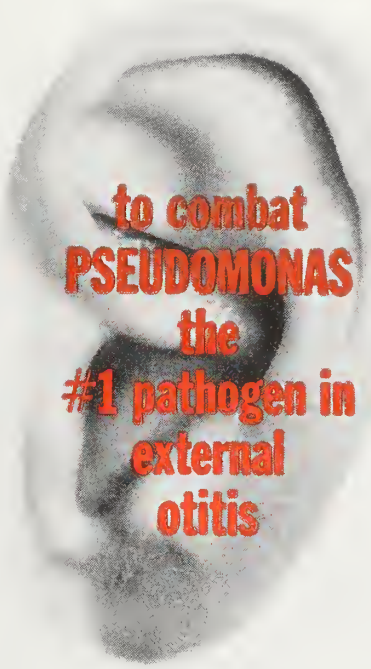
Life Practically Preordained

Sex was not openly displayed but was generally confined to the marriage bed and the house of prostitution. The accepted roles of men and women were clear cut, concise, limited and relatively inflexible. Woman's place was in the home. Man earned the bread,—all of it. This was clearly his responsibility, not woman's. If husbands were not masters of their fate and captains of their souls in this role-rigid world, they were at least masters and captains of their families or their women led them to believe they were. How times have changed!

The vast changes in our culture and way of life in the past century have created hazards for all marriages and all family life. Dilemmas, complexities, instabilities and tensions have been created by such factors as movement from simple, self-sufficient, rural living to complex, inter-dependent urban life, by changing attitudes about sex, divorce and moral standards, by the dependency of an increasing number of aged, by the closing of physical frontiers, by the skills of a type of advertising which preys on our subconscious and leaves us feeling grossly inadequate for being without X

* Presented in the course Psychiatry for the General Practitioner and Non-Psychiatric Specialist, Indiana University School of Medicine, June 7, 1961.

† Executive Director, Family Service Association of Indianapolis.



'CORTISPORIN'®

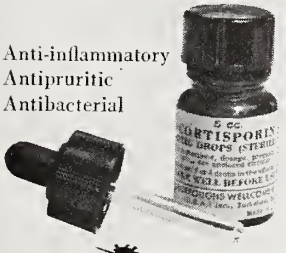
OTIC DROPS (sterile)

brand

the #1 therapy for inflamed, infected ears

Because it provides Polymyxin B for the eradication of Pseudomonas, the prime cause of external otitis, 'Cortisporin' is the logical choice of treatment for inflamed, infected ears. Polymyxin B is the antibiotic specific for *Pseudomonas aeruginosa* infections, and is, for this pathogen, the standard of effectiveness against which other antibacterials are measured.

- Anti-inflammatory
- Antipruritic
- Antibacterial



Each cc. contains:

'Aerosporin'® brand Polymyxin B sulfate	10,000 units
Neomycin Sulfate (Equivalent to 3.5 mg. Neomycin Base)	5 mg.
Hydrocortisone	10 mg. (1%)

Bottles of 5 cc. with sterile dropper.

Literature available on request.

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N. Y.

product without knowing why, and by increasing world tensions and inflation.

All of these factors have some negative effects on mature, seasoned, stable adults. It almost goes without saying that their effects on the immature—the youngsters in marriage—are even greater.

Three changes are worth special mention because of their particular effect on teen-age marriages. First, in our highly industrialized and increasingly complex economy the three R's no longer afford adequate preparation for breadwinning. With increasing automation it is becoming more difficult to stay off the unemployment rolls without highly specialized training. Many cannot manage with high school diplomas; some can't manage with college degrees. Marriage in the teens, more often than not, solidifies at a low level a boy's ability to get the training he needs to compete successfully for the higher paying positions. There are exceptions, of course, many of them.

Wife Adds Her Support

For example, I know a young man whose wife, a high school graduate, has earned his way through graduate school. The exceptions to solidified low level vocation are exceptions indeed and are usually fraught with soul searing compromises such as the acceptance by the man of dependence on his wife's earnings and the role of a "kept" man, delays in having children, sometimes by means of violation of religious bans, or the enervating demands on wives who do double duty as employees and housekeepers.

A second change of the century which makes life difficult for the married teenagers is the changing role of men and women. The adolescent today is no longer faced with the question of how to be a man or woman but literally what role to choose in the broad and confused spectrum of acceptable husband or wife behavior. With no clear standards the behavorial patterns chosen by two young newly-wed partners frequently do not mesh and often result in two aggressive partners who battle it out 'til divorce do them part or two submissive partners who fail to take the responsibilities required for effective family living.

The movement toward democratic family life and equal rights for women were sorely needed advancements, but individual interpretations of equality and democracy in a world of confused male-female roles can be strange indeed. In marriage counseling we frequently encounter the wives who expect orgasm with every contact as a matter of democratic right and others who interpret equality as permitting husbands to run their jobs downtown while the wives run everything else.

Another cultural shift which seriously affects teen-age marriages is the movement away from age status toward strong emphasis on youth. In no age have adolescents listened very eagerly to the voice of experience. In our time with its lopsided emphasis on youth, it is a very unusual adolescent who is able to accept guidance from an elder. This psychological separation from sources of counsel before and after marriage is compounded by the sharp increase in change of residence which characterizes our time and which frequently separates young couples from the counsel and help of older relatives and friends in the crises they face when they desperately need help and are sincerely willing to accept it.

Thus, the adolescent marriage partners today find themselves in a much more complex and threatening world than their ancestors and with fewer resources to carry them over the rough spots.

More and More Child Brides

At what rate are we progressing toward younger marriages? As married life has become more complex the younger have we married. In 1890 the median age of grooms was 26.1 years. In 1955 it had dropped to 22.7. In 1890 the median age of brides was 22. In 1955 it had dropped to 20.2. Probably the most startling vital statistics are in the sheer number of children who marry. According to a report of the National Office of Vital Statistics, out of a total of 760,000 marriages in 1957 in 28 states, more than 89,000 grooms and 284,000 brides were 19 or under.

What about the Indiana scene? The Indiana State Board of Health statistics show

Continued



In acne—24-hour-a-day skin care with antibacterial pHisoHex®

(contains 3% hexachlorophene)

In acne, pHisoHex, antiseptic detergent, provides *continuous* antibacterial action against the infection factor. With exclusive, frequent use, pHisoHex builds up an effective antibacterial film on the skin that resists rinsing—lasts from wash to wash. pHisoHex augments any other therapy of acne.

When pHisoHex was used for washing by 42 patients with acne, "the results were uniformly encouraging. . . ."[1] "No patient failed to improve."[1]

pHisoHex cleans the skin of acne patients better than soap because it is forty per cent more surface active. It is a powerful emulsifier of oil, an action particularly beneficial in acne. Moreover, it cleans the orifices of the sebaceous glands, sweat glands and hair follicles more rapidly and more thoroughly than soap. pHisoHex lacks the potentially harmful qualities of soap. It is nonalkaline, nonirritating and hypoallergenic.[2]

For acne, prescribe pHisoHex—and get improved results.

pHisoAc® Cream dries, peels and masks lesions. Use it with pHisoHex washings to help prevent comedones, pustules and scarring. Contains colloidal sulfur 6 per cent, resorcinol 1.5 per cent and hexachlorophene 0.3 per cent.

pHisoHex is available in unbreakable squeeze bottles of 5 oz. and 1 pint—and in combination package with pHisoAc Cream.

1. Hodges, F. T.: *GP* 14:86, Nov., 1956.
2. Guild, B. T.: *Arch. Dermat.* 51:391, June, 1945.

Winthrop LABORATORIES
New York 18, N.Y. (1665M)

that of 42,050 marriages in 1960, 16,540 brides, or almost 40% were 19 or under. The grooms did better on maturity. Only 6,094 or 14.5% were teen-agers. A more significant figure is that in more than one of eight of the state's marriages both the bride and groom were teen-agers.

Why are teen-agers plunging into marriage? There is extremely little objective proof for the reasons being advanced. The research has been sparse but the fact that various disciplines advance the same reasons is some indication that we are close to the truth. These are the factors we believe to be operating:

1. *The insecurity reason.* The youth of today are quite insecure and tend to find security in a mate who will provide affection, warmth and loyalty. The insecurity derives from the impact of world tensions, the increasing number of families broken by death, divorce and separation, the increasing number of mothers who are employed, the loss of traditional family functions and tensions resulting from the shift from rural to urban family living. Lacking the warmth, protection and attention of parents, living in cold, tense and impersonal cities and in a world which is about to blow up, the young seek each other's arms.

2. *Security is enhanced by going steady.* No longer do young people start courtship by playing the field and eventually settling down to going steady. Our courtship patterns have changed. Children start in their early teens and sub-teens and are quite experienced in the premarital processes of wooing at 17 and 18. There is considerable evidence that parents stimulate early dating patterns. Parents as well as children are living in an insecure world which becomes easier to accept with offspring who are so "precocious and popular" that they date at 13.

3. *The trend to hedonism.* Heaven and sin have passed from our vocabulary. Life is to be enjoyed while one can. Personal happiness can be achieved in the marriage bed if not in a parked hot rod.

4. *Romantic love.* In the pursuit of personal happiness marriage is seen, not in terms of obligations, responsibilities and burdens, but chiefly in idealistic fulfillment of dreams. This picture has been created by popular entertainment and literature. The pattern of boy meets girl, they become soul mates, marry and live happily ever after (without post-marital problems) is repeated over and over again until the young believe it to the bottoms of their feet.

Attempts to slow them down are part of the standard plot and drive them closer together. The romantic image is a motivating force in most marriages in our western culture but there is considerable evidence that among those who have reached their majority the image is leavened with more realism derived from life experience and greater reluctance to take long chances on conditions which are hazardous for marital success.

5. *War influences early marriage.* War of and by itself is a sufficient combination of circumstances (insecurities, stimulus to hedonism and romanticism) to trigger an upsurge in teen marriages. In World War I and II youth marriages rose sharply and fell off after demobilization was ended. Youth marriages increased during the Korean War but have not fallen off since —probably because "cold war" is as great a stimulus to early marriage as "hot war."

6. *The "bandwagon" effect in which one couple follows another into early marriage.* There is little question that the popularity of early marriage in itself is not a major causal factor but in a culture of conformity (as I believe our present American culture is) and among adolescents who are strongly influenced by fads, the marriage of a few teen-agers in any social set undoubtedly plays a significant part in stimulating early marriage.

7. *Sex experimentation.* Early dating patterns, availability of autos, going steady, and relative freedom from controls add up to sex experimentation and sometimes illegitimacy. Our national illegitimacy rate tripled between 1940 and 1956. That illegitimacy is centered among teen-agers is indi-

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ENDOCRINE AND PHARMACEUTICAL PRODUCTS OF QUALITY

Organon

An important announcement to physicians who prescribe corticosteroids

Organon's new technical process now makes one of the newer, most highly potent and well tolerated corticosteroids available at greatly reduced cost to your patients with allergic, arthritic or other inflammatory conditions.

This new product is being marketed under the trade name of HEXADROL, brand of dexamethasone 'Organon'. HEXADROL is now being offered to your pharmacist at a price which should make it available to your patients at a cost well within the price range of older generically prescribed corticosteroids. It is supplied as 0.75 mg. white scored tablets, in bottles of 100.

If you have been prescribing the older corticosteroids— such as prednisone, prednisolone, hydrocortisone or cortisone, and have hesitated to prescribe the newer corticosteroids because of economic consideration for your patients, you can now secure all of the clinical advantages of dexamethasone at approximately the same prescription expense. Mg. for mg., HEXADROL is approximately 6 times more potent than triamcinolone or methylprednisolone...8 times more potent than prednisone or prednisolone...28 times more potent than hydrocortisone...and 35 times more potent than cortisone.

If you are now prescribing the newer corticosteroids— such as triamcinolone, betamethasone, paramethasone or another brand of dexamethasone, because of reduced risk of sodium and fluid retention, potassium depletion, or disturbance of glucose metabolism—you can obtain all of these benefits with HEXADROL, at marked savings—yet with complete assurance of unsurpassed quality and therapeutic effect.

For complete information concerning HEXADROL— including indications, dosage, precautions and side effects—or if you would like a trial supply, ask your Organon Representative, or write to: Director, Professional Services, Organon Inc., West Orange, N. J.

'Organon'—your professional assurance of quality
Hexadrol®—your patient's assurance of economy!

cated by the fact that this same year, 1956, girls 15 to 19 bore more illegitimate babies than any other age group. Roughly, one out of every seven girls this young who bore a child was not married. Many unmarried teen-agers who become pregnant consider marriage the only solution even though they suspect that the marriage will end in divorce.

A forced marriage is more socially acceptable than unmarried parenthood. Different studies across the country show that between 15.7% to 87% of teen-age marriages take place after pregnancy. A normal, well-adjusted 16-year-old boy told us that he had broken off relationships with his steady girl friend and had resolved to stay away from girls for a number of years because he could not stand the sexual tensions of dating in the modern pattern and could not accept a forced marriage.

8. *Early marriage as an escape from difficult family life.* There is little question that family problems are increasing. Since the end of World War II Family Service Associations across the country have witnessed a phenomenal increase in requests for counseling with a broad range of family problems. In the past ten years our applications in the Indianapolis agency have increased 114%. The increase is mainly in problems of inter-personal relationships such as marital and parent-child conflicts. Additional evidence of increased family conflict can be found in the divorce figures. In 1940 1.4 million people were divorced and not remarried. In 1958 the figure increased to 2½ million. Each year the number of women separated from their husbands is nearly as great as the number divorced. When teen-agers live in homes torn by strife they frequently seek escape into marriage, a state which they envision as giving them adult status where no one can tell them what to do. Sometimes the marriage, by the way of illegitimate pregnancy or not, has strong elements of retribution against battling parents who have given them a rough time. The move to marriage may be abetted by difficulty in school. In any event, marriage to them appears to be a sound solution to unhappy family life.

9. *Job opportunities for teen-agers make the escape from family and schooling easier.* He can get a job in a gas station, she can type and clerk at minimum wages of $1.15 an hour, credit is easy and a one-room apartment will do.

10. *Instruction, formal or informal, in how to achieve peaceful marriage is almost absent from the current scene.* By and large parents, if they think of it at all, think the youngsters will pick it up someplace outside the home. Schools and churches, with some notable exceptions, take a few stabs at it but really believe parents should do it. Some women's magazines (which boys do not read) run regular articles but the mass media usually let it go with a canned column on advice to the lovelorn. Mass media's efforts are more than cancelled out by radio's soap operas, television's old movies and journalism's short stories and comic strips which pound away on the theme that love conquers all.

What happens after the marriage vows are taken? I can tell physicians little which you do not already know because your profession places you at the crossroads of life.

Because teen-agers are usually immature physically, mentally and emotionally; because they frequently lack preparation, strength and experience for a traumatic change in their way of life; because many of the reasons which drive them into marriage are the same reasons which make it difficult for them to sustain the most complicated of human relationships they get into the same kinds of marital problems which plague adults of stouter fibre plus some which are particularly reserved for teen-agers.

One-half Are Headed for Divorce

Teen-age divorce statistics are appalling. The younger the age at marriage, the greater the chances of divorce. A recent study concluded that women who marry in their mid-teens are approximately three times as likely to divorce as women who marry in their early twenties. Exact data are not available but an educated guess is

that approximately half of the marriages in which both partners are in their teens are doomed to divorce.

It is sheer irony that the flight from insecurity toward togetherness in early marriage would result in loneliness. A vary common problem of teen couples in the early stages of marriage is separation from a peer group. They seem to be unable to find or maintain relationships with other married teen couples; they do not fit in with other unmarried couples their age and can't relate to older couples. During the period of their greatest adjustment they adjust alone —the hardest way to adjust.

Pre-marital Pregnancy

Another handicap common to teen marriages is pre-marital pregnancy, an extremely difficult condition for marital success. In counseling with couples of all ages we have learned that regardless of the circumstances of the impregnation which leads to marriage, each partner comes to feel that the other is responsible for the forced marriage. With battle lines thus established, forced marriages are both a common cause of marital conflict and a difficult handicap for the family counselor to overcome.

Still another problem is the teen-ager's inability to form responsible, practical, give-and-take relationships in marriage. In describing her work with young couples in conflict, one of our staff members never assumes that they know much about adult relationships and she starts at a bedrock level to teach them. For example, she repeatedly reminds a young groom that he must tell his teen-age wife that he appreciates her good cooking. Effective communication, one of the most important ingredients in marital success requires a maturity which the young infrequently possess. By failing to express positives they often stimulate doubts and resentments in their partners or they hold little negatives to their bosoms until they explode in sweeping, irrational accusations.

When to these particular problems and handicaps are added the irritants common to all marriages,—sex adjustments, money management, differences around having or disciplining children, alcohol, mental or physical health problems, housing, education, problem in-laws, religious differences, housekeeping standards and who wears the pants, is it any wonder that many of these child marriages fail?

Despite all these handicaps and problems some teen marriages succeed. At the outset, some of them have the major ingredient for marital success, emotional maturity. Some are able to survive by achieving maturity quickly, with or without adult supervision and reach the enviable position of early launching into satisfactory careers, acceptable outlets for their sex drives and raising families while they are still young. These marriages are assets to society and cause little concern. Nor, from the point of view of impact on society is our major concern with those who quickly move out of marriage with no offspring and with a resolve to be wiser next time. Society's chief concern is with those who are caught in unfortunate marriages they can't escape and visit on themselves, their children and society a rash of social, economic, emotional and health problems.

Control Must be Exercised

What can we do about all this? First let us be realistic about our abilities to turn the clock back to yesterday's benign conditions for family life. Many of the broad cultural changes and sets of circumstances creating the problem are difficult or impossible to control. We can't outlaw the cold war, or do away with working mothers, or pressure advertising, or delay the onset of puberty, but if we are to stop paying a heavy price for the results of sick family life we must control those conditions which are in our power to control.

Two practical means are becoming increasingly evident. The first is a broadly applied and intense system of education for effective family living as a preventive measure to slow down marriage among the emotionally immature and designed to give them some equipment to deal with the problems of early marriage. The second is counseling or individual treatment of a broad range of marriage and family problems for both the parents and children who slip

Continued

through the screen of education or develop problems later.

Important strides have been made in both of these endeavors. In counseling and treatment of individual problems the post World War II period has seen the development of out-patient mental health clinics, child guidance clinics and the retooling of the old private family welfare agencies into family counseling services equipped with staffs well trained and skilled in solving problems of family relationships. Significant developments have occurred in education for family living in many family service agencies, clinics, high schools, churches and agencies such as the Y's and Social Health Associations.

As a new field which has barely won its professional stripes, we are beset with problems,—among them the difficulties of distinguishing in the public mind between well-intentioned but dangerously ill-equipped do-gooders and the truly professional people, the tragic situations of clients who reach us too late for effective help and too little research to push our skills forward and develop materials needed for prevention. Chief among the problems of the 300 Family Service Associations in America is that of too little money and too few well-equipped staff members to do more than serve a small portion of those who need our services. We are running so hard to keep up with families who need individual counseling that we are neglecting our important role in prevention through education.

Too Little Help, Too Late

We believe that we and the other helping professions must find the ways to solve the problems of too little help and too late help for families because there is overwhelming evidence that family life, good or bad, is the greatest factor in shaping the destinies of individuals and states. Because defective family life is a major cause and carrier, generation after generation, of mental illness, dependency on public support and delinquency, family breakdown is truly our most serious human problem. The stakes are very high indeed in our quest to find the quantitative and qualitative ways to prevent the immature from creating and perpetuatin their difficulties. ◄

Report on Actions of the House of Delegates

American Medical Association

111th Annual Meeting

June 24-28, 1962

Chicago

TWO RESOLUTIONS ON approved internships introduced by Indiana delegates at the AMA House of Delegates meeting in Chicago were passed at the meeting June 25.

The first resolution stipulated that the Council on Medical Education and Hospitals discontinue immediately denial of approved internship programs on the basis of the hospital not having an organized out-patient department.

The second asked that a committee of private practicing physicians of the House of Delegates be appointed to study this problem and report its findings and recommendations back to the House in June, 1963.

Dr. Harold C. Ochsner, Indianapolis, served as chairman of the AMA reference committee on Medical Education and Hospitals.

Health care for the aged, medical discipline, composition of the AMA Board of Trustees, a study of the American Board of Abdominal Surgery, relations with the American College of Surgeons and voluntary health insurance were among the major subjects acted upon by the House of Delegates.

Dr. Edward R. Annis of Miami, Florida, chairman of the AMA National Speakers Bureau and well known spokesman in the campaign against the King-Anderson Bill, was chosen president-elect of the association. Dr. Annis will become president at the June, 1963, annual meeting in Atlantic City, succeeding Dr. George M. Fister of Ogden, Utah, who assumed office at the Tuesday night inaugural ceremony in Chicago.

The AMA 1962 Distinguished Service Award was voted to Dr. Russell L. Cecil, 81, of New York City, senior editor of the Textbook of Medicine and one of the nation's leading researchers in the field of arthritis.

Final registration figures at the meeting reached a total of 42,643, including 14,092 physicians.

Health Care for the Aged

The House received 17 resolutions expressing full support of the Kerr-Mills program and firm opposition to the King-Anderson type of legislation. In reaffirming the position of active opposition to the King-Anderson Bill, the House cited the following reasons:

1) "the lack of need for such a plan.
2) "that it would provide inadequate care for all aged rather than complete care for those who need help.
3) "the fact that inherent in the use of the Social Security mechanism are governmental controls of medical practice which would increase with the expansion of the program.
4) "deterioration of the quality of medical care not only for the aged but for the population as a whole."

In reaffirming strong support for the Kerr-Mills Act, the House declared that "the Kerr-Mills method should be given a fair and reasonable chance to meet the need and thus remove the demand for further Federal legislation."

It urged that in states where existing programs indicate a need for a Kerr-Mills implementing law, each state association should actively sponsor and promote with other responsible citizens the enactment of such a law. It also urged the state associa-

tions to "work actively with other responsible citizens in reviewing the functions of the law, evaluating its effectiveness and aggressively supporting improvements in programs to aid those aged who need help so as to achieve the provision of quality medical care and service."

The House took no action on one resolution which called for non-participation in the implementation of the King-Anderson Bill, but it urged individual physicians to give particular consideration to the following sections of the Principles of Medical Ethics:

"Section 1.—The principal objective of the medical profession is to render service to humanity with full respect for the dignity of man. Physicians should merit the confidence of patients entrusted to their care, rendering to each a full measure of service and devotion.

"Section 5.—A physician may choose whom he will serve. In an emergency, however, he should render service to the best of his ability. Having undertaken the care of a patient, he may not neglect him; and unless he has been discharged he may discontinue his services only after giving adequate notice. He should not solicit patients.

"Section 6.—A physician should not dispose of his services under terms or conditions which tend to interfere with or impair the free and complete exercise of his medical judgment and skill or tend to cause a deterioration of the quality of medical care."

Commenting on the Association's fight against the King-Anderson Bill, Dr. Leonard W. Larson, retiring president, told the opening session of the House that "this great struggle has been testing again whether the science and art of medicine will be permitted to grow and flourish in freedom, or whether progress in medicine will be stunted and shriveled by the excesses of government control."

He declared that the steadfast refusal of the AMA to compromise on basic principles "has been a source of strength for us and our friends." Dr. Larson expressed confidence in ultimate victory, but he added that victory will impose a solemn obligation of responsible leadership for all physicians.

Also commenting on the question of compromise, Dr. Fister in his inaugural address said "we will not compromise with those who regard medical care problems as simply playthings in the game of politics—gimmicks to attract the votes of the gullible."

Medical Discipline

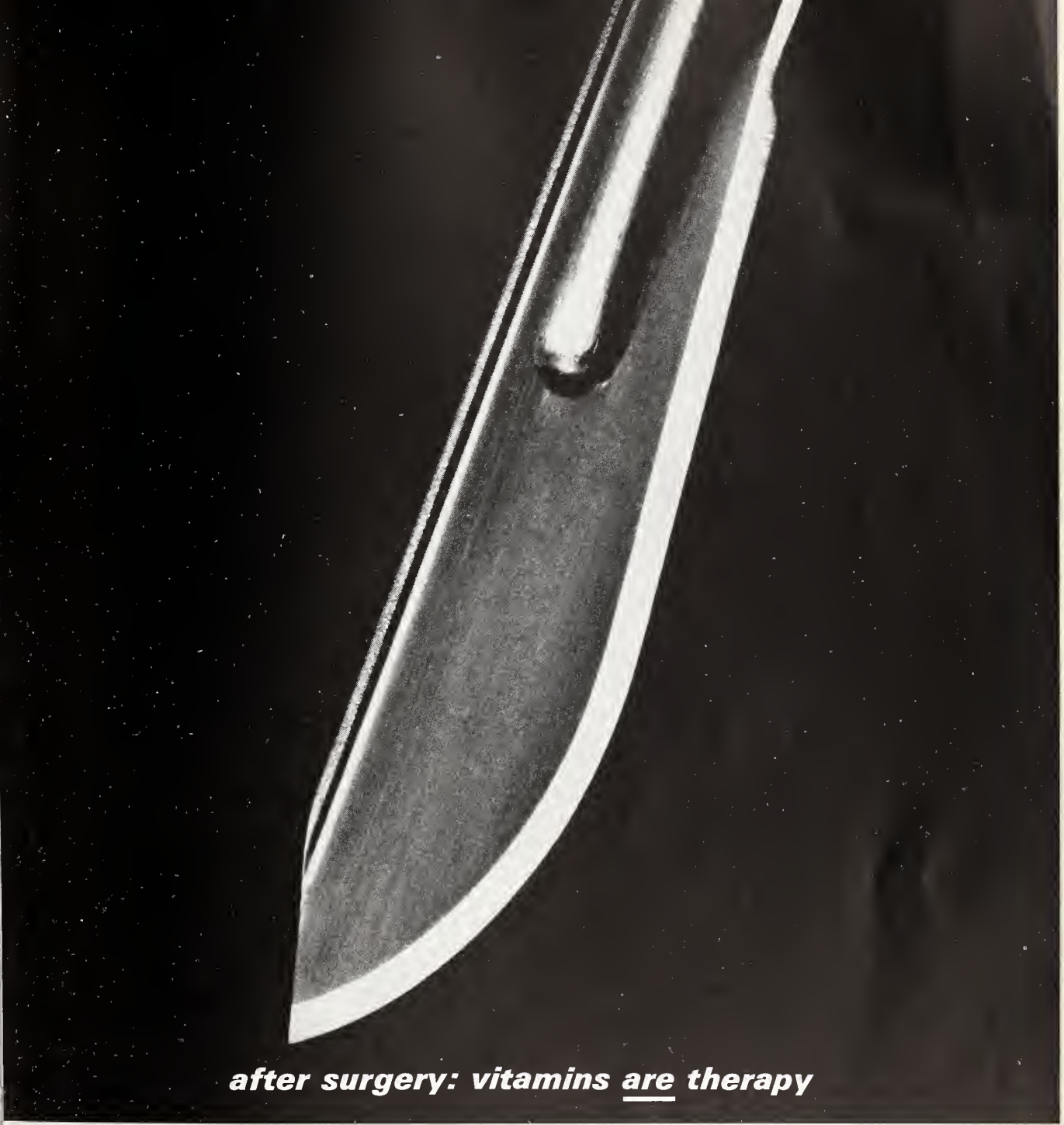
To implement one of the major recommendations made by the Medical Disciplinary Committee at the June, 1961, meeting in New York, the House approved a change in the Bylaws under which a proposed Section 1 (B) of Chapter IV will now read:

"In addition to such disciplinary action as may be taken under the constitution and bylaws of the component society and constituent association to which the member belongs, or when a state medical association to which a member belongs requests the AMA to take disciplinary action, or when at the request of the American Medical Association the state association to which the member belongs consents to disciplinary proceedings by AMA, the Judicial Council, after due notice and hearing, may censure him, or may suspend or expel any member of the American Medical Association from AMA membership only for an infraction of the Constitution or these Bylaws or for a violation of the Principles of Medical Ethics."

AMA Board of Trustees

The House approved a report of the Ad Hoc Committee on the Board of Trustees which recommended that the size of the Board be increased from 11 members to 15 members. This will be accomplished by adding three elected members and by including the immediate past president of the Association for a one-year term. The House also accepted a committee recommendation that set the term of office for elected Board members at three years and limited the number of terms to three, for a maximum total of nine years service. To implement the House action, the Council on Constitution and Bylaws submitted changes in the

Continued



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Each capsule contains:	
Vitamin B_1 (Thiamine Mononitrate)	10 mg.
Vitamin B_2 (Riboflavin)	10 mg.
Niacinamide	100 mg.
Vitamin C (Ascorbic Acid)	300 mg.
Vitamin B_6 (Pyridoxine HCl)	2 mg.
Vitamin B_{12} Crystalline	4 mcgm.
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Recommended intake: Adults, 1 capsule daily, or as directed by physician, for the treatment of vitamin deficiencies.

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Constitution and Bylaws for consideration at the 1962 Clinical Meeting.

American Board of Abdominal Surgery

A study report from the Council on Medical Education and Hospitals, recommending that recognition should not be granted to the American Board of Abdominal Surgery as a specialty board, was approved by the House. In accepting the Council report, the House also declared its disapproval in principle of establishing specialties which are based largely or wholly on an arbitrarily defined anatomical region of the body.

The study, which was carried out under instructions from the House of Delegates at the 1961 Clinical Meeting, concluded that the present contribution of the American Board of Abdominal Surgery to the advancement of surgery and the betterment of public health is inadequate in many important respects. It also concluded that the American Board of Abdominal Surgery does not offer significant potential for the advancement of surgery and the betterment of public health.

American College of Surgeons

In considering a Board report and four resolutions involving surgical assistants and relations between the AMA and the American College of Surgeons, the House declared that the adoption and interpretation of the Principles of Medical Ethics is the prerogative and duty of the American Medical Association. It also restated the Association's June, 1961, policy statement in the following manner:

1. "Each member of the AMA is expected to observe the Principles of Medical Ethics in every aspect of his professional practice.

2. "Each doctor engaged in the care of the patient is entitled to compensation commensurate with the value of the services he has personally rendered.

3. "No doctor should bill or be paid for a service which he does not perform; mere referral does not constitute a professional service for which a professional charge should be made or for which a fee may be ethically paid or received.

4. "When services are rendered by more than one physician, each physician should submit his own bill to the patient and be compensated separately whenever possible.

5. "It is ethically permissible in certain circumstances, however, for a surgeon to engage other physicians to assist him in the performance of a surgical procedure and to pay a reasonable amount for such assistance. This principle applies whether or not an assisting physician is the referring doctor."

Voluntary Health Insurance

In accepting a Council on Medical Service report on the utilization of state and federal tax funds to provide voluntary prepayment health insurance protection to assist the aged in meeting the costs of health care services, the House approved the following policy statement:

1. "The need for application of the prepayment or insurance principle to protect our people against the costs of medical care is fully recognized and applies to all ages rather than to the aged alone.

2. "Persons financially able to prepay their own expenses are expected to do so and must be encouraged rather than compelled to do so.

3. "Persons financially unable to prepay adequately their expenses may properly be assisted to the degree necessary by their families, their communities, their states, and if these fail, by the Federal Government —but only in conjunction with other levels of government.

4. "The prepayment system should be devoid of governmental controls.

5. "Dignity and self-sufficiency for the individual should be upheld.

6. "The protection offered must be reasonably comprehensive rather than token in character."

The House recommended that the Board of Trustees and the Council on Medical Service explore all possibilities, using these principles as a basis.

Miscellaneous Actions

In considering reports and resolutions on a wide variety of subjects, the House also:

Continued



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- specific enough to relieve underlying fear and apprehension
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Experience in over 14,000,000 Americans confirms the fact that, in most patients, the potential benefits of 'Thorazine' far outweigh its possible undesirable effects.

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HOUSE OF DELEGATES

Continued

Learned that the Board of Trustees has instructed the Council on Drugs to conduct a study on the relationship between *tobacco and disease.*

Disapproved a suggestion that the Council on Medical Education and Hospitals be replaced by *two separate councils* on undergraduate and graduate medical education.

Referred to the Board of Trustees a proposal that at least six members of the *Council on Medical Education and Hospitals* shall be engaged primarily in the private practice of medicine in hospitals without a medical school affiliation and that no more than four members may be salaried personnel of a medical school or university.

Approved a resolution that *honorariums* be provided for the Association's elected officers in amounts to be determined by the Board of Trustees.

Adopted an AMA Statement of Principles on *Mental Health* and urged all constitute associations to lend active support to the First National Congress for Mental Illness and Health, to be held in Chicago in October.

Endorsed a resolution on *employment of the handicapped,* stating that each individual candidate for employment should be evaluated in light of his ability to perform useful work.

Approved a Guide to the Organization and Operation of *Airport Medical Services* submitted by the Council on Occupational Health.

Endorsed the joint statement on *narcotic addiction* by the AMA and the National Research Council of the National Academy of Sciences.

Urged automobile manufacturers to make *seat belts,* approved by the Society of Automotive Engineers, standard equipment on all automobiles.

Approved a recommendation that *AMA meetings* be scheduled as follows: Annual Meetings—1966, Chicago; 1967, Atlantic City, and 1968, San Francisco, and Clinical Meetings—1965, Philadelphia, and 1966, Las Vegas.

Recommended that the Council on Medical Education and Hospitals conduct a study of *specialty residencies.*

Reaffirmed its opposition to *compulsory coverage of physicians* under the Social Security Act, after receiving 11 resolutions opposing coverage and only two favoring the inclusion of physicians.

Accepted the report of the *Committee on Communications* as information, and, in considering the committee recommendations, suggested that the Executive Vice President present a report of Association activities to the House at each meeting.

Opening Session

At the Monday morning session, the AMA presented a special citation to Jackie Cooper, star of television, stage and movies, for his portrayal of a Navy doctor in the "Hennesey" television program. The 1962 Joseph Goldberger Award in clinical nutrition was presented to Dr. Edwards Albert Park of Baltimore for his investigations of rickets and scurvy in children. Dr. Larson received a plaque for his work on the medical advisory board of the Sears-Roebuck Foundation. The American Medical Association was given awards of appreciation from the Cuban Medical Association in Exile and the Girl Scouts of America.

Inaugural Ceremony

Dr. Fister, in his inaugural address, declared that "we will cooperate, to our very utmost, with government officials, legislators and all Americans who are sincerely interested in finding sound, practical solutions to medical care problems—solutions which include both a respect for medical standards and a respect for the taxpayers."

The Distinguished Service Award was presented to Dr. Cecil; Donald D. Van Slyke, Ph.D., research chemist at the Brookhaven National Laboratories, received the first AMA Scientific Achievement Award honoring outstanding contributions to medicine by non-physician scientists. Mrs. George Papanicolaou was given a special award honoring her late husband's service to mankind.

Wednesday Session

Dr. Fister, in his Wednesday address, assured the House of Delegates, all AMA

Continued

convenient
Fast-acting NaClex spares your patient the inconvenience of long, drawn-out diuresis. Taken in the morning, or by early afternoon, it completes desired water loss before bedtime.

persevering
Although fluid excretion returns to nearly normal 12 hours after one NaClex tablet, the excretion of sodium and chloride ions continues above control values for 24 hours or more.

reassuring
Prompt fluid and weight losses with NaClex encourage your patients, promote confidence and cooperation. NaClex often allows a more liberal dietary salt intake for selected patients.

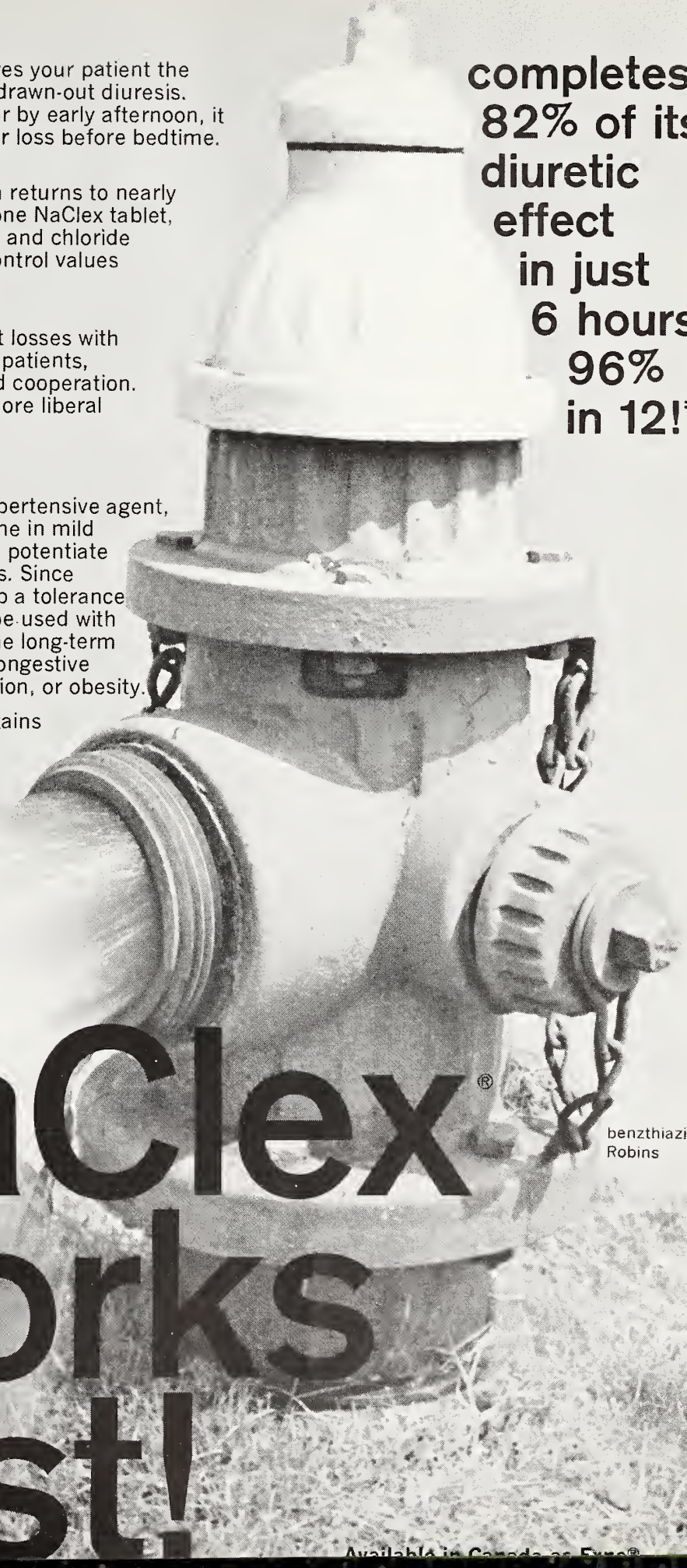
versatile
Also an effective antihypertensive agent, NaClex can be used alone in mild hypertension or used to potentiate other hypotensive drugs. Since patients seldom develop a tolerance to NaClex, it can often be used with continuing efficacy in the long-term ancillary treatment of congestive heart failure, hypertension, or obesity.

Each NaClex tablet contains benzthiazide, 50 mg.

*R. V. Ford: Cur. Ther. Research, 2:51, 1960.

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completes 82% of its diuretic effect in just 6 hours— 96% in 12!*



NaClex® works fast!

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members and the citizens of this country that "during the next year there will be no letup in our campaign to preserve the high standards of our voluntary, free choice, medical care system." He said that no organization, especially one which thrives on challenge and opportunity to serve the public, can be static.

Election of Officers

In addition to Dr. Annis, the new president-elect, the following officers were named at the closing session on Thursday:

Dr. J. P. Culpepper, Jr., Hattiesburg, Miss., vice president; Dr. Norman A. Welch, Boston, re-elected speaker of the House, and Dr. Milford O. Rouse, Dallas, Tex., re-elected vice speaker.

Dr. Charles L. Hudson, Cleveland, Ohio, and Dr. Wesley W. Hall, Reno, Nev., were re-elected to five-year terms on the Board of Trustees. Dr. Elmer G. Shelley, North East, Pa., was renamed to the Judicial Council.

Re-elected to the Council on Medical Education and Hospitals were Dr. Warde B. Allan, Baltimore, and Dr. W. Clarke Wescoe, Lawrence, Kansas.

Dr. George W. Slagle, Battle Creek, Mich., was elected to the Council on Medical Service, succeeding Dr. Robert L. Novy, Detroit, who was ineligible for re-election.

For the Council on Constitution and Bylaws, Dr. Walter E. Bornemeier, Chicago, was re-elected, and Dr. James Monroe Kolb, Sr., Clarkesville, Ark., was named to fill the unexpired term of the late Dr. Walter E. Vest, Huntington, W. Va. ◄

F. J. L. Blasingame, M.D.
Executive Vice President
American Medical Association



113 Years of Progress

Dedication of the
New Home of the Indiana State Medical Association
3935 North Meridian Street, Indianapolis 8

From 1849 to 1962, A History of the Association

Dedicatory Address by George M. Fister, M.D., President, AMA

List of members who hove donated to the Building Fund

"The Dedicatory Plaque"



This Building Is Dedicated

To the Purpose of Federating and Bringing Into One Compact Organization the Medical Profession of the State of Indiana; to Extend Medical Knowledge and Advance Medical Science; to Elevate the Standard of Medical Education; to Promote Friendly Intercourse Among Physicians; to Enlighten and Direct Public Opinion in Regard to the Great Problem of Medical Care, and Public Health, So That the Profession Shall Become More Capable and Honorable Within Itself and More Useful to the Public in the Prevention and Cure of Disease and in Prolonging and Adding Comfort to Life.

An historical review

Chapter 113
In the Annals of Indiana Medicine

FOUR MAJOR WARS . . . settlement of vast sections of the United States . . . economic and social upheaval of major proportions—all have been a part of the passing scene since the physicians of Indiana wisely decided that in organization lies strength, not only for themselves but for advancement of the health and welfare of the citizens of this state.

Today's 4,300 members of the Indiana State Medical Association—and the citizenry in general—owe a great and unusual debt to the foresight of the founding fathers of medical organizational activity because it was their faith in the future of this state and nation which made possible, to a great degree, the forward-looking programs of today.

Actually, the record shows, only three states—Tennessee, Ohio and Pennsylvania have had active medical associations antedating the Indiana State Medical Association. As a matter of fact, Indiana might properly claim priority over this trio because transactions of the Vincennes Medical District Society in June, 1827, stated the following: "This Society proceeded to elect delegates of the State Medical Society" and "Resolved, that this Society do allow the sum of ten dollars to the delegates annually to the State Medical Society."

Thus a state organization of physicians—even though rudimentary—did exist in 1827—if not earlier. However, for current purposes concern is given only to the present Association which has had an uninterrupted existence since 1849 as attested by the bound transactions published annually.

Early Days

At the first meeting held June 6, 1849, there were 28 who answered the roll call at Wesley Chapel in Indianapolis. Named to official positions were: Dr. Livingston Dunlap, president; Drs. N. Johnson, T. Ryan, J. W. Florer and C. Wallace, vice-presidents. Drs. John S. Bobbs and A. M. Hunt were elected secretaries.

No scientific papers were read at this initial meeting but the organizational groundwork was established—a point for reflection when one attends the modern-day annual ISMA convention of hundreds of physicians and others gathered to hear noted scientific speakers from many areas on a diversity of subjects and to view the dozens of scientific and technical exhibits and other features which have made Indiana's yearly convention nationally outstanding.

In 1857, 46 physicians answered "pres-

ent" and by the close of the meeting 24 more had affiliated with the state organization. In fact, the Association could boast of 353 members but, due to the difficulty of travel, only those in the immediate vicinity attended sessions.

It was sometime between 1849 and 1857 that the constitution was changed in such fashion as to provide for a delegate body which, in turn, led to the formation of component county societies—79 of which exist today. There are 13 joint county societies.

At the 1879 annual meeting the treasurer reported $857 in total expense of which $113 represented the cost of the session. The President condemned the policy of county societies sending delegates to the American Medical Association, holding that they should be selected only by the State Association, or "Society" as it was then known.

The year 1879 was notable, too, because it was in this period that the first Indiana physician was named to the presidency of the AMA—Dr. Theophilus T. Parvin of Indianapolis. He was the vanguard of many practitioners from Hoosierdom who have assumed positions of national prominence.

Reorganization and Federation

In 1903 Dr. J. N. McCormack of Kentucky was retained by the AMA to tour the country with the objective of reorganizing all state societies, to standardize their constitutions and to federate all of them to form a stronger, more powerful AMA. The new constitution was adopted and printed in the 1903 Indiana transactions; the name was changed from "Society" to "Association"; an official House of Delegates was created and apportionment was reduced to one delegate for every 100 members of a county society as compared with the previous ratio of one to every five members. In 1909 this number was changed to 50 where it remains today. (In turn, Indiana sends one official delegate to the AMA House of Delegates for every 1,000 members.)

At the 1903 reorganizational session the state was divided into 13 district societies with a Councilor to represent each district. These officers originally were appointed by the ISMA President but subsequently were elected by their respective district societies as remains the case today.

As originally established the House of Delegates constitutes the policy making body of the ISMA with the Council meeting to implement and execute policy at least four times a years. The later established executive committee, in turn, acts between Council meetings—but all operate within the guidelines placed down by the House of Delegates.

Expansion Accelerates

The 1920's witnessed major developments in the structure of ISMA. A headquarters office was opened in 1924 in Indianapolis' downtown Hume Mansur Building and a full time executive secretary was employed—Mr. Thomas A. Hendricks was the first incumbent, followed by Mr. Ray E. Smith upon whose death the current executive was retained, Mr. James A. Waggener.

It was also in this period that new methods of budgetary controls were instituted, new committees were formed to cope with growing health care problems, the office of vice president was eliminated and substituted by the office of president-elect. And during that era—1927 to be exact—the Woman's Auxiliary was founded to become the important "right arm" that it is today.

Advances were steady in the ensuing years of the 30's . . . the 40's . . . the 50's . . . medical knowledge and its application to an expectant public brought complex problems. Specialty treatment of disease entities grew apace necessitating the formation of new committees—and later commissions—to deal with a multiplicity of questions—all requiring answer for the benefit of the patient.

The spectre of socialized medicine loomed ever more menacing with its threat to the continued good health of the state's and nation's populace and the ISMA—joined by many allies—spearheaded wide-ranging campaigns of public information and education against federal compulsion of health services. This effort has required major labor and resources of thousands of concerned citizens who have joined their doc-

tors in the still-to-be-won battle against encroaching welfare statism.

The years have seen physicians engaged, through their State Association, in public relations endeavors . . . grievance committees . . . legislative activities at state and national levels. In fact, today some 16 different commissions and committees—many divided into sub-groups—labor for the best welfare of the state's population. Every facet of disease and injury is encompassed in the commission and committee structure of the association to the ultimate end of constantly improved health for Indiana residents.

Largely because of the rapid and never-ending increase in the work load of the ISMA attention of the House of Delegates and officers was increasingly directed to the eventual necessity for more space from which the growing activity could properly be planned, administered and directed.

Need for New Quarters Apparent

As early as 1941 there were discussions regarding the possibility of acquiring a house for conversion to office use. At a meeting in July, 1957, the Council concurred in a recommendation of the executive committee that a planning committee be appointed by the Council to investigate the feasibility of an ISMA Headquarters Building.

This first committee consisted of Drs. A. C. Badders, Portland; Paul D. Crimm, Evansville; Hugh Kuhn, Hammond; John M. Paris, New Albany; O. W. Sicks, Indianapolis (chairman); Russell J. Spivey, Indianapolis; M. C. Topping, ex-officio.

The committee pursued numerous ideas and was unanimous in its belief that the time had, at last, come for the ISMA to erect its own headquarters building. This opinion was supported by a survey of many other states which had faced and met the same problem. All those polled agreed that construction of a suitable and fitting "home" had meant increased efficiency, provided a "bond of unity and pride" for the respective members as the years passed, and worked for the advancement of the profession in countless ways.

In addition an independent management survey firm was retained and, after exhaustive research, came to the conclusion that the ultimate answer rested in an Association headquarters building from a standpoint of economic and utilitarian efficiency.

An opinion survey of the Association's entire membership was undertaken in which major facets of the question were presented. The majority of those returning the survey questionnaire supported opinion that a headquarters building program should be undertaken.

At the French Lick meeting of the House of Delegates on October 6, 1957, the Council presented a resolution calling for the building of a headquarters office and it was adopted.

To implement this decision the Council, in April, 1958, approved creation of a special building fund to be used for acquisition of land, employment of an architectural firm to prepare plans and specifications and for other costs incidental to the program.

The 1959 meeting of the House of Delegates appointed the following physicians to the Building Committee: Dr. Frederic W. Brown, Fort Wayne; Dr. Ralph V. Everly, Indianapolis (chairman); Dr. R. Case Hammond, Evansville; Dr. Harry Pandolfo, Indianapolis, and Dr. Jack E. Shields, Brownstown.

A multiplicity of problems and questions calling for hours of study faced the committee, not the least of which was selection of a site. Many areas were considered including location on the campus of the Indiana University School of Medicine and also the mansion on Indianapolis' Fall Creek Boulevard occupied for years by Indiana's governors.

Site Selected

At its July, 1960, meeting the Council was informed that a site had been selected at 3935 North Meridian Street, Indianapolis. The firm of Lennox, Matthews, Simmons and Ford, Inc., was retained as architects and Thomas A. Berling & Sons were employed as the prime contractor.

While coincidental, it seemed appropriate that the North Meridian Street location



THE OLD HOME of the Mantel Family, 3935 N. Meridian. The tree on the right still stands.

marked the home of the Mantel family—a Mantel daughter married Dr. Morris Fishbein who gained international reputation as editor of the *Journal of the American Medical Association*, and is currently editor of *Medical World News*.

A Reality at Last

Thus it was—after so many hours of dedicated work, effort and financial support by so many members—that on a cold and rainy April 9, 1961, ground was broken with the Council and other officers in attendance. By October the outside walls had risen from the mud and on the last day of the 1961 annual ISMA convention the cornerstone bearing the legend "1961" was laid in place with appropriate ceremony.

Official dedicatory services for the newly occupied and completed headquarters were observed on July 15, 1962, with more than 300 ISMA members, their families and others in attendance. An address by Dr. George Fister, President of the AMA, highlighted the ceremonies. (His remarks are carried elsewhere in this section.)

Dr. Ralph V. Everly snipped the ribbon guarding the front door, assisted by Dr. Harry R. Stimson, President, and Dr. Maurice E. Glock, president-elect.

What the members and visitors saw that day was a beautiful, functional building whose contemporary design blends naturally and attractively into its surroundings. Its unique decorative screen of aluminum forms a frontpiece that evokes much favorable comment.

The plaudits are just as pronounced for the building's tastefully decorated interior where available space has been used to all advantage. The large Council room with its long boardroom table and attractive appointments is a focal point, but the Auxiliary Lounge, the Executive Committee Room, President's office, executive offices and entrance foyer and visitors' area likewise gain much praiseworthy attention.

All of these offices are in the front of the one-story building. A large area in the rear contains space for secretarial and clerical activities, mail room and spacious separate quarters for publication of *The Jour-*



AND THE WALLS came tumbling down.



THE FOUNDATION goes deep and concrete starts to pour.



GROUNDBREAKING DAY, April 9, 1961. Dr. Guy A. Owsley wields the spade watched by members of the Council, officers and Building Committee.

nal. Pictures of all past ISMA presidents have been hung on the walls of the library. The basement is used for storage and utility purposes.

In all there are 13,000 square feet of well-planned and highly utilitarian space at "3935," enabling the holding of all ISMA meetings under one roof, with exception of the State Convention.

Justifiable tribute here is paid to Mrs. J. William Wright, Sr., and J. William Wright, Jr., M.D., for their generosity in donating furnishings and appointments for the Council room as a memorial to J. William Wright, Sr., who served as ISMA president in 1952. A specially commissioned portrait of Dr. Wright, Sr., hangs in the Council room.

In another evidence of generosity Dr. Guy A. Owsley, president of ISMA in 1961 during the peak of building activity, furnished a decorative flag pole.

The Woman's Auxiliary, through combined effort, made possible the furnishings for its lounge in another of its many admirable aids to ISMA.

Financing of the Headquarters Building has been made possible to a major degree by the unselfish devotion and support of many members of the ISMA whose names are listed elsewhere in this special section.

Their motivation—as well as so many others—is contained in the words of the dedicatory plaque. ◄



THE BUILDING starts to grow as scaffolding reaches upward.



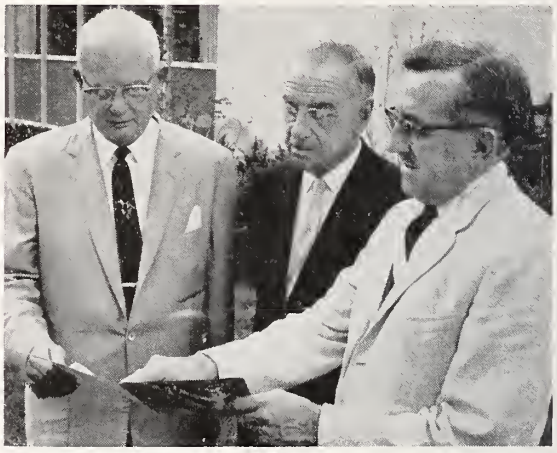
THE CORNERSTONE (left) was laid in place on the last doy of the 1961 Convention, October 26. From left to right: Dr. Rolph V. Everly, Choirman of the Building Committee; Dr. Guy A. Owsley, 1961 President ond Dr. Harry R. Stimson, President Elect.

DR. EVERLY and Dr. Stimson (below right) discuss the new building with Dr. George M. Fister (center), President, AMA.

DR. EVERLY cuts the ribbon (bottom right) guording the front door, ossisted by the ribbon holders, Dr. Maurice E. Glock, President Elect, and Dr. Harry Stimson.

MR. LENNOX, of Lennox, Motthews, Simmons and Ford, Inc., presents the key of 3935 N. Meridian Street to Dr. Stimson.



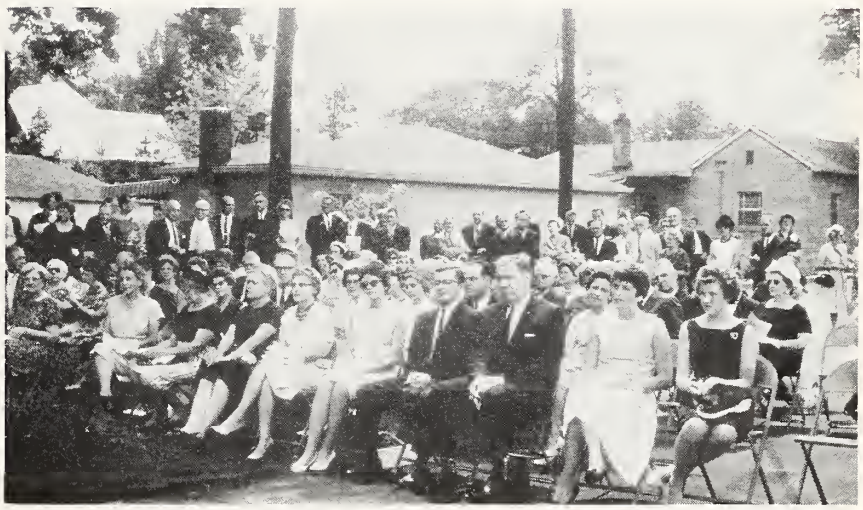






THE OFFICERS of the State Association and the Auxiliary, the Building Committee and the presidents of 35 component county medical societies assembled for the Dedication ceremonies.

SOME OF THE MANY members and their families who gathered to attend the Dedication.





DR. HARRY R. STIMSON, ISMA President, in his office at 3935 N. Meridian Street.



THE WEST WALL of the entrance foyer, the first view as one enters the building.

Dedication of the Indiana State Medical Association Building

GEORGE M. FISTER, M.D.
Ogden, Utah

I AM HAPPY AND HONORED to be here with you today, bringing to you on this occasion the congratulations of 189,000 members of the American Medical Association. This is an important occasion because it is an important building we dedicate. Its importance is more widespread than many of us might imagine.



George M. Fister, M.D.

Of primary consideration is its importance to the Indiana State Medical Association, which was organized in 1849. You have built a handsome and impressive structure here. It is *solid*. It is *substantial*. And that substance and solidity presents to the visitor a reminder of the devotion and direction of the men and women of medicine here in Indiana. But the new building's impression on the visitor is a secondary service to the Indiana State Medical Association. Its primary function lies in providing a place for solving problems. . . for disseminating public and professional education and information. . . for reliable decisions in the interests of the public and medicine . . . and for promoting the best in the science of medicine and the continued improvement of the public health.

Sharing with you the good results of this building is the real reason why we are here today: That reason is the needs of our fellowmen. All of a doctor's learning, all of his facility, and all of his professional fervor have the patient's welfare as its end. That which aids the doctor in his practice benefits the patient. Thus it is that this building will help the nearly five million citizens of Indiana to richer and healthier lives.

Aid to Education

By this I mean that these new facilities will aid individual doctors and your state association in public and patient education and services in such vital areas as community health and safety, disease detection, doctor placement and supply, emergencies, protection from quacks and health faddists, school health, rural health, occupational health and care of the aged and needy.

I do not believe it amiss to go a step further and say that these added services to the health of the people of Indiana will be reflected favorably across the face of our nation. For as a link is reinforced, strength is added to the chain. Further, these new facilities for the doctors of Indiana will add to the armamentarium of doctors throughout America.

Truly, then, we dedicate a most important building. We may call it a "home" for the Indiana Medical Association and its services; we may call it more correctly an "implement" of those services.

We should *not*, I believe, call it a "monument." I say this for two reasons. First, the word monument has a lonely and dead ring to it, and this is a building of *life!* Secondly, most monuments are built to something already accomplished. Medicine will never be *accomplished* — in the sense of having reached perfection—so long as there is one human being left to know pain or illness.

But there *is* a monument to the doctors of Indiana. It is a collective monument, formed of every human being here whose suffering has been alleviated . . . whose life has been saved by delicate surgery . . . or

who has been spared misery and pain. *These* people are your monument! And may they grow in health and number more rapidly than ever before because of this building we are dedicating. May your advice, and their good judgment and personal responsibility bring the total good health that *can* be everyone's. For, with that combination, the American of the 1960's can expect:

1. Additional years of healthful, productive living.
2. More years free from acute or chronic illness.
3. Less susceptibility to most diseases.
4. Rapid convalescence from injury if he is in good health prior to the accident.
5. Prolonged earning power . . . more years on the job and less absenteeism because of illness . . . increased physical and mental efficiency in his work . . . and a greater amount of leisure time for recreation.
6. Finally, the endurance to fight the battle of life.

Yes, it does take vigilance and personal effort to acquire and to maintain good health. But the modern layman has that vigilance and the stamina to make that effort, aided by the miracles of modern medicine.

Without those miracles — without the close, personal relationship of physician and patient, such good health is not possible. Nor could this building serve in the many ways it is destined to serve.

Good medical practice—to every patient by every physician every day of the year in the office, in the hospital or in the home —*this* is what American medicine desires. This is what made this building possible. This is what is necessary to prevent decay of this new headquarters and the medical profession.

The heart of this matter has been and will continue to be the devotion of physician to patient, the competence to handle the problems of the individual patient, and the ethical manner in which each physician carries out his role in the doctor-patient relationship.

Encouragement for Future Physicians

More than political machination threatens this vital balance. There may come a time where sheer numerical growth will deprive a booming population of close individual contact with the doctor of the patient's choice. We hope not. But we are going to need more doctors.

Demanding more physicians is much easier than supplying them, of this I am fully aware. The training of new physicians takes time. More important, it first requires students who want to be doctors, a medical faculty trained and eager to teach, and school facilities in which the student can learn. What is the answer—an answer about which *all* medical personnel must be vitally concerned?

We know we must start active recruitment at the high school level because many students make their decisions about a career when they are high school seniors.

But, of course, determination and ability of a medical student will not put him through school. It also takes money. To help this situation, the AMA established this year a student loan fund, and in my inaugural address last month in Chicago, I was pleased to report that applications for use of this fund arrive at a rate of 200 weekly, with requests now totalling more than two million dollars.

American medicine is deeply and sincerely interested in the future education and training of the nation's physicians. Those of you in the Indiana State Medical Association have done much to increase the interest on the part of the *student* in American medicine. I know you will keep up the good work.

How many of us were attracted to medicine through the example set by the man who treated us for measles or appendicitis, or walked from mother's bedroom to present us with a new brother or sister. His kindnesses, his gentle authority, his devotion made *us* want to be just like him. That was the beginning.

I believe most sincerely that those doctors of Indiana who have helped to bring to the people of the state this new building *typify* that same spirit of medical dedication that we saw—and followed—in our family doctors many long years ago. ◄

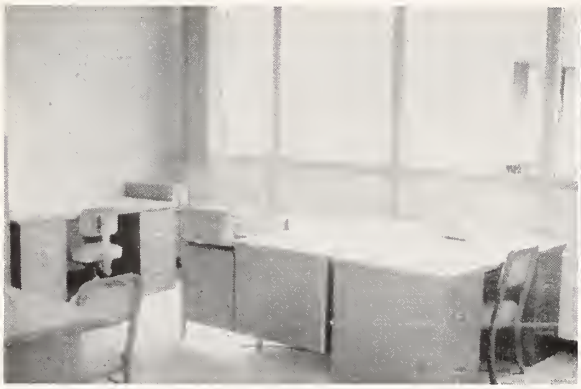
THE LIBRARY (right). On the east and west walls are hung the photographs of all past presidents.



A CORNER of the entrance foyer (below). An attractively furnished area for the reception of guests.



THE PICTURES BELOW (left to right, top to bottom) show the Journal office, a corner of the Woman's Auxiliary lounge, general office area and the Medicare department. The color scheme in the office areas is beige and yellow.











THE COUNCIL ROOM looking south through to the Executive Committee Room. The windows on the west side of the council room run the full length of the room.



DR. J. WILLIAM WRIGHT, Jr., Mrs. J. William Wright, Sr., and Mrs. J. William Wright, Jr., standing by the portrait of Dr. J. William Wright, Sr. This commissioned portrait and the furnishings of the Council Room in which it hangs were donated by Mrs. Wright, Sr., and Dr. Wright, Jr., as a memorial to Dr. Wright, Sr., President of ISMA, 1952.



THE FIRST COUNCIL MEETING to be held in the new Headquarters Building, July 14, 1962.

Doctors Who Have Contributed to the Building of the New Home of ISMA

(As of July 15, 1962)

ADAMS COUNTY

Beaver, Norman E.
Boze, Robert L.
Burk, James M.
Carroll, John C.
Freeby, C. William
Kohne, Gerald J.
Luginbill, Howard M.
Parrish, Richard K.
Reppert, Roland L.
Rich, Norval
Schetgen, J. V.
Terveer, John B.
Zwick, Harold F.

ALLEN COUNTY

Aiken, Arthur F.
Aiken, Nevin E.
Anderson, Ernest
Andrew, Jerald L.
Arata, Justin E.
Ball, John R.
Baltes, Joseph H.
Barch, John W.
Bash, Wallace E.
Baumgartner, Jeraldine
Beams, Ralph H.
Beights, Raymond S.
Bergendahl, Emil H.
Beutler, Theodore V.
Billingsley, John S.
Blichert, Peter A.
Bossard, John W.
Bowers, Gah T.
Brandt, William E.
Bromley, Luman W.
Brosius, Robert H. W.
Brown, Frederic W.
Bryan, Franklin A.
Buckner, George D.
Chambers, Alan R.
Cutshaw, James
Clark, William R.
Cochran, Harry A., Jr.
Connelly, Richard D.
Cooney, Charles J.
Cottrell, Robert F.
Craig, Richard M.
Culp, John E.
Dunstone, Harry C.
Emme, Richard W.
Farquhar, John S.
Ferguson, Arthur N.
Fichman, Abraham M.
Flaherty, Robert A.
Foy, Hayward W.
Frankhouser, Charles M. A.
Fullam, Richard G.
Gerding, William J.
Gladstone, Naf H.
Glassley, Stephen H.
Glock, Maurice E.
Glock, Wayne R.
Gould, John C.
Graham, George M.
Graham, James C.
Griest, Walter D.
Hackett, Walter G.
Haffner, Herman G.
Hamilton, Emory D.
Harless, Fred
Harvey, Harry C.
Hasewinkle, August M.
Hastings, Warren C.
Hattendorf, Anton P.
Havens, Russell E.
Hershberger, Philip G.
Hickman, Donald M.
Hillery, Robert L.
Hipskind, Richard E.
Hoffman, Arthur F.
Holsinger, Robert E.
Humphreys, John L.
Jackson, John F.
Jontz, Joe G.
Juergens, Richard B.
Jurgensen, Walter T.
Karol, Herbert J.
Keck, Carleton A.
Kent, Richard N.
Keyes, Robert C.
Kimbrough, Robert F.
Kleifgen, William A.
Ladig, Donald S.
Lampe, Elfred H.
Land, Francis L.
Laycock, Richard M.
Leming, Ben L.
Lenk, George G.
Lloyd, Robert P.
Lohman, Robert M.
Lyon, William C.
Mackel, Frederick O.
Manning, George C.
McCoy, Roy R.
McDowell, George A.
McEachern, Cecil G.
Mercer, Samuel R.
Meyer, Theodore O.
Michaelis, Stephen C.
Miller, Edward D.
Miller, H. Paul
Miller, Mahlon F.
Miller, Orval J.
Miller, Richard H.
Miller, Robert B.
Miller, William J.
Moats, Carl F.
Moeller, Victor C.
Moravec, Arthur E.
Morey, Edwin E.
Mueller, Lawrence W.
Murdock, Harvey L. (S)
Nill, John H.
Nolan, Gerald R.
O'Brian, John F.
O'Rourke, Carroll
Oyer, John H.
Painter, Donald S.
Parker, Carey B.
Parrot, Donald J.
Pauly, Leonard R.
Pearson, Huey L.
Perrin, Kermit F.
Perry, Frederic G.
Pickett, Merle E.
Ponczek, Edward J.
Popp, Milton F.
Powell, M. Jack
Priddy, Marvin E.
Rissing, Walter J.
Roser, Arthur J.
Rossiter, Dudley L.
Rothberg, Maurice
Sahlmann, Hans
Salon, Harry W.
Salon, Nathan L.
Schlademan, Karl R.
Schloss, Robert P.
Schmidt, Eugene E.
Schmoll, Robert J.
Schoen, Frederic L.
Scoins, William H.
Senseny, Eugene F.
Sherwood, J. Vincent
Shinabery, Lawrence
Sidell, James P.
Smith, Philip L.
Snyderman, Sanford C.
Somers, Gerald H.
Spencer, C. Herbert
Stanley, Robert G.
Stauffer, Richard C.
Steigmeyer, David J.
Stier, Paul L.
Stucky, Jerry L.
Sullivan, Robert E.
Tennant, David L.
Terrill, Richard W.
Ungemach, Willo F.
Vogel, Lloyd A., Jr.
Weber, John R.
Wick, Alfred A.
Williams, A. Berniece
Wilson, Leslie
Wilson, Roland B.
Worley, Ansel C.
Wyatt, James L., III
Zweig, Elmer S.

New Haven

Dahling, Clemens W.
Dahling, Fred W.
Hoetzer, Eldore M.
Stumpf, Edwin E.
Wade, Reynolds W.

Woodburn

Miller, Kenneth D.
Bichacoff, Billie D.

BARTHOLOMEW-BROWN COUNTIES

Adler, David L.
Beggs, Lowell F.
Biggs, William
Clay, Eleanor
Daugherty, Forest D.
Dugan, Thomas
Echsner, Herman J.
Gammell, Lindley L.
Henry, Alvin L.
Knotts, Halleck S.
Knotts, Slater
Krueger, Robert B.
Macy, George W.
Marr, Griffith
McCullough, Henry G.
Mohler, Floyd W.
O'Bryan, Richard B.
Ranck, Benjamin A.
Rau, Charles A.
Reid, Robert M.
Richmond, Harold W.
Ryan, William J.
Schmitt, Richard K.
Schneider, Kenneth D.
Seibel, Robert M.
Snapp, Richard A.
Teal, Dorothy D.
Warshaw, Seymour
Weinland, George C.
Williams, Earl K.
Williams, Everett W.
Zaring, Byron K.

BENTON COUNTY

McKinney, Donald L.

BOONE COUNTY

Bailey, Lawrence S.
Kern, Clarence G.

CARROLL COUNTY

Adams, Max R.
McLaughlin, James R.
Petry, T. Neal
Van Kirk, John
Wagoner, George W.
Wise, Charles L.

CASS COUNTY

Bailey, Earl W.
Bean, Joseph S.
Burnett, Paul C.
Cheng, Sylvia F.
Chu, Johnson C. S.
Dutchess, C. Toney
Eckert, Russell A.
Glendening, Richard L.
Hall, Bernard R.
Hedde, Eugene L.
Hillis, Lowell J.
Hochhalter, Marian
King, Jay M.
Maschmeyer, Robert H.
Morrical, Russell J.
Newcomb, William K.
Phipps, Elwood B.
Winter, Donald K.

CLARK COUNTY

Goodman, Eli
Jones, David H.
Mudd, Joseph P.
Regan, George L.
Willner, Alan
Wolverton, George M.

Jeffersonville

Carr, Joseph H.
Greene, William R.

Bizer, Mier A.
Havens, A. Lyle
Havens, Thomas R.
Reed, Edsel S.
Thompson, Walter

CLAY COUNTY

Bond, Walter C.
Buell, Forrest R.
Garvin, Donald B.
Maurer, J. Frank
Maurer, Robert M.
Mehne, Richard G.
Moon, Charles E.
Shattuck, John C.
Webster, Robert K.

CLINTON COUNTY

Beardsley, Frank A.
Carrel, Francis E.
Dykhuizen, Theodore A.
Flora, Fred W.
Hammersley, George K.
Hedgcock, Robert A.
Waits, Chester L.

DAVIESS-MARTIN COUNTIES

Norton, Horace O.

DEARBORN-OHIO COUNTIES

Aldred, Allen W.
Baker, Leslie M.
Conrad, Henry W.
Fagaly, William J.
Fessler, Gordon S.
Frable, Frank L.
Houston, Fred D.
Hunter, Lowell G.
Irmscher, George
Jackson, John K.
McNeely, Matthew J.
Morrison, George G., Jr.
Olcott, Charles W.
Pfeifer, James M.
Streck, Francis A.
Weisenberger, Brockton L.

DECATUR COUNTY

Acher, Robert P.
Callaghan, Winship C.
Dickson, Dale D.
Harkcom, Harry E.
Miller, James C.
Morrison, James T.
Overpeck, Charles
Porter, Robert A.
Shaffer, William R.
Walker, Louis

DE KALB COUNTY

Carpenter, Ramesh S.
Coleman, Floyd B.
Covell, Harry M.
Hines, Archie V.
Hines, John H.
Hippensteel, Harland V.
Jinnings, Loren E.
Kantzer, Floyd B.
Nason, Robert A.
Novy, Charles A.
Nugen, Harold
Rogers, Evered E.
Showalter, John P.
Wills, Max
Weirich, Charles I.

DELAWARE-BLACKFORD COUNTIES

Brown, Stewart D.
Burns, Paul E.
Hammond, Keith
Hinchman, Jean F.
Hill, Howard E.
Hill, Robert E.
Hurley, John R.
Ko, Richard C. B.
Mathewson, R. C.
Moss, Mavor J.
Puterbaugh, Karl E.
Tucker, Oral A.
Ware, Herbert

Hartford City

Dodds, James U.
Dudgeon, Charles A.
Jackson, Dean B.
Owsley, Guy A.
Parks, George O.
Werry, Leslie E.
Wierzalis, Edward F.

Muncie

Adams, Julia L.
Adams, William B.
Alvey, Charles R.
Ball, Clay A. (S)
Ball, Phillip
Benken, Lawrence D.
Bergwall, Warren L.
Bettig, A. C.
Bibler, Henry E.
Botkin, Clyde G.
Botkin, Thomas
Brown, Leland G.
Brown, Thomas M.
Burwell, Stanley W.
Butterfield, Robert M.
Butz, Ralph O.
Clevenger, Joseph H.
Cochran, Robert B.
Collins, Margaret C.
Covalt, Wendell E.
Cooper, John
Cullison, John L.
Cure, Elmer T.
David, Geo.
Deutsch, William
Dunning, Thomas W.
Funk, John W.
Galliher, Marjorie J.
Garling, Luvern C.
Geckler, Charles E.
Gibson, Robert K.
Greiber, Marvin F.
Gustafson, Milton
Hall, Robert S.
Hayes, Theodore R.
Henderson, Ramon A.
High, Ralph L.
Holmes, John L.
Hostetter, Irwin S.
Imhof, Joseph D.
Gill, Thos. A
Christie, Robt. W.
Kammer, Grace C.
Kammer, Walter F.
Kirshman, Forrest E.
Koss, K. William
Laduron, Jules
Lowry, Donald J.
McClintock, James A.
McCoy, George E.
McDowell, Fletcher W.
Montgomery, Lall G.
Morris, Jean W.
Nelson, Harold E.
Owens, Thomas R. (S)
Peacock, Robert C.
Pippenger, Wayne G.
Quick, William J.
Rivers, Glynn A.
Schoenhals, Charles E.
Smith, James S.
Speck, Carlson R.
Stibbins, Warren
Stout, Francis E.
Stump, Richard
Taylor, Donald R.
Taylor, James A.
Tharp, Donald W.
Tobe, Robert
Tomlin, Hugh M.
Venis, Kemper N.
Vlaskamp, Elaine
Voss, Gert
Walker, Jack M.
Young, Gerald S.

DUBOIS COUNTY

Barrow, John H.
Backer, Henry G.
Scales, Alfred B.
Scales, Allen D.
Williams, Fielding P.

Jasper

Beaven, John B.
Blessinger, Paul J.
Gootee, Francis H.
Gootee, Thomas H.
Ploetner, Edward J.
Singer, Paul J.
Wagner, Arthur L.

ELKHART COUNTY

Bristol

Horswell, Richard G.
Neidballa, Edward G.

Elkhart

Arlook, Theodore D.
Atwood, William H.
Bender, Robert L.
Benson, James E.
Billings, Elmer R.
Boling, Richard
Bowdoin, George E.
Campbell, Patrick B.
Classen, Pete R. C.
Compton, Walter A.
Conklin, Raymond L.
Cormican, Herbert L.
Crandall, Lathan A.
Dovey, Edward G.
Echeverria, Rodolfo E.
Elliott, Thomas A.
Finfrock, James D.
Futterknecht, James O.
Gattman, George B.
Graber, Virgil R.
Hannah, Jack W.
Harris, Neil
Heminway, Norman
Hurley, James W.
Ivy, John H.
Jones, Robert B.
Keating, John U.
Kesim, Mufit
Kintner, Burton E.
Koehler, Elmer G.
Krause, Friedrich
Lundt, Milo O.
McArt, Bruce A.
Martin, Paul H.
Middleton, Ramona J.
Miller, Galen R.
Miller, Hugh A.
Mininger, Edward P.
Mishkin, Irving
Paff, William A.
Paine, George E.
Pancost, Vernon K.
Parshall, Dale B.
Patrick, Glenn B.
Rouen, Robert
Rupe, Lloyd O.
Schlosser, Herbert C.
Sobol, Z. W.
Spray, Page E.
Stubbins, William M.
Swank, Lucretia R.
Swihart, Homer R.
Wilson, Orley E.
Yoder, C. Richard

Goshen

Amstutz, Henry C.
Bigler, Frederick W.
Bosler, Howard A.
Bowser, Philip G.
Chandler, Leon H.
Hostetler, Carl M.
Kaufman, Lillie S.
Kennedy, Myron S.
Krabill, Willard S.
Martin, Floyd S.
Quilty, Thomas J.
Simmons, Lloyd H.
Troyer, Dana
Troyer, George W.
Turner, John P.
Wagner, David G.
Westfall, George S.
Young, Ralph H.

Millersburg

Massanari, Walter S.

Middlebury

Miller, Donald G.
Teters, Melvin S. (S)
Rheinheimer, Floyd L.

Nappanee

Fleetwood, R. A.
Kendall, Forest M.
Price, Douglas W.
Roose, Lisle W.

Syracuse

Craig, Robert A.
Fosbrink, Ephraim L.
Zimmerman, William H.

Wakarusa

Abel, Robert
Guttman, John B.

FAYETTE-FRANKLIN COUNTIES

Sanders, Bertram W.

FLOYD COUNTY

Brown, Kenneth H.
Edwards, William F.
Garner, William H., Sr.
Higgins, John R.
LaFollette, Donald R.
LaFollette, Robert E.
McCullough, James Y.
Paris, John M.
Sloan, Herbert P.
Sonne, Irvin S., Jr.
Streepey, Jefferson I.
Wolfe, Nelson

FOUNTAIN-WARREN COUNTIES
Crain, James W.
Fisher, John E.
Furr, Jack D.
Hoffman, Max N.
Humphrey, Edward M.
Maris, Lee J.
Nelson, Carl A.
Person, Theodore C.
Petrich, Peter R.
Quiambao, Hector S.
Raymundo, Vivencio F.
Rusk, Hubert M.
Smith, Byron J.
Stephens, Lowell R.
Suzuki, Tsutomu T.

FULTON COUNTY
Richardson, Charles L.
Stinson, Dean K.

GIBSON COUNTY
Carpentier, Harry F.
Dye, William E.
Folck, John K.
Geick, Raymond G.
Graves, Orville M.
Marchand, Edwin V.
McCarty, Virgil
McElroy, Robert S.
Peck, James F.
Petitjean, Harold G.
Weitzel, Roland E.
Wells, William R.

GRANT COUNTY
Alderfer, Henry H.
Ansbacher, Stefan (H)
Ayres, Wendell W.
Bailey, Douglas A.
Braunlin, Robert F.
Brown, Robert M.
Comeau, William J.
Davis, Joseph B.
Davis, Merrill S. (S)
Davis, Richard M.
Dunbar, Fred E.
Fisher, Henry
Ganz, Max
Hover, Galen M.
Jarrett, John C.
Koontz, William A.
Langrell, Harrison M., Jr.
Lavengood, Russell W.
Lonngren, Dudley H.
Love, V. Logan
McIlwain, Robert E.
Miller, H. Allison
Pattison, John D.
Pearcy, Marcene
Powell, J. Paxton
Price, Ambrose M.
Reid, James D.
Renbarger, Lester L.
Rhamy, Arthur P.
Rhamy, Donald E.
Rhorer, John G.
Richardson, Joseph H.
Rifner, Eugene S.
Roll, William A.
Schroeder, Robert W.
Simmons, Frederick H.
Skomp, Claud E.
Smith, Barton T.
Snowhite, Arthur B.
Taylor, Everett C.
Thompson, B. Jay
Walton, R. Lee
Warren, Carroll B.
Wojcik, Ladislas D.
Woodbury, John W.
Yale, Charles A.

HANCOCK COUNTY
Kuhn, Robert W.

HARRISON-CRAWFORD COUNTIES
Blessinger, Louis H.
Brockman, Wilfred J.
Dillman, Carl E.
Dukes, David J.
Johnson, J. M.
Jordan, Richard A.
Lynch, Otis R.
Martin, Samuel W.
Seipel, Stanley

HENDRICKS COUNTY
Cohen, Irving
Gibbs, Joseph W.
Scamahorn, Malcolm O.
Scamahorn, Oscar T. (S)
Scudder, Arthur N.

HENRY COUNTY
Amos, Robert L.
Craig, Alexander F.
Fisher, John E.
Grant, Phyllis A.
Life, Homer L.
McElroy, James S.
Robertson, William S.
Scheetz, Marion R.
Smith, Mark E.
Stauffer, George E.
Steussy, Calvin N.

HOWARD COUNTY

Greentown
Denton, Larkin D.
Shoup, Homer B. (S)

Kokomo
Alward, John H.
Artis, Myrle E.
Ault, Carl H.
Behn, Walter M., Jr.
Belding, Ray T.
Boughman, Joe D.
Bowers, Copeland C.
Bowers, Garvey B.
Bowers, John A.
Brown, Earl R., Jr.
Bruegge, Theodore J.
Cattell, Lee M.
Clarke, Elton R.
Conley, Thomas M.
Crawford, Theodore R.
Earl, Max M.
Fields, Donald L.
Frazier, John L.
Fretz, Richard C.
Golper, Marvin N.
Good, Richard P.
Grothouse, Carl B.
Halfast, Richard W.
Hoyt, John M.
Hutto, William H.
McClure, Warren N.
Mendelson, Stanley M.
Michael, Robert L.
Murray, Ernest C.
Paris, Durwood W.
Phares, Robert W.
Prather, Philip E.
Rhorer, Herbert M. (S)
Rudicel, Max
Schwartz, Frederick C.
Smith, Gloster J.
Wachob, Tom W., Jr.
Ware, John R.

HUNTINGTON COUNTY
Bennett, J. B.
Brubaker, Harold S.
Casey, Stanley M.
Clunie, William A.
Cooper, B. Trent
Cope, Stanton E.
Doermann, Paul E.
Eviston, John B.
James, Thomas, Jr.
Marks, Howard H.
Meiser, Robert D.
Mitman, Floyd B.
Omstead, Trevalyn W.
Van Campen, Warren M.
Wagner, Richard
Woods, Halden C.

JACKSON-JENNINGS COUNTY
Bard, Frank B.
Berkshire, Shaffer
Calli, Louis
Easter, J. N.
Gillespie, Garland R.
Guthrie, William H.
Hingeley, John
Johnson, William A.
Scharbrough, William D.
Shields, Jack E.
Thayer, Benet W.

Seymour
Baxter, Harry R.
Black, Joe M.
Bobb, Kenneth E.
Bosch, Ralph
Graessle, Harold P.
Martin, Guy
Miller, Harold E.
Osterman, Louis H.
Templeton, Ian S.
Wiethoff, Clifford A.

JASPER-NEWTON COUNTIES
Brady, Kingdon
Parker, John C.
Schantz, Richard
Schoonveld, Arthur
Yegerlehner, Roscoe S.

Rensselaer
Beaver, Ernest R.
Greene, Robert W.
Jones, Edwin F.
O'Brien, Francis E.
Ockerman, Kenneth R.
Williams, Paul A.

JAY COUNTY
Cripe, William H.
Cronin, H. J.
Fitzpatrick, James S.
Gillum, Eugene M.
Keeling, Forrest E.
Lyon, Florence M.
Schenck, Ralph E.
Spahr, Donald E.
Steffy, Ralph M.
Tate, Elizabeth

JEFFERSON-SWITZERLAND COUNTIES
Childs, Wallace E.
Fong, Theodore C. C.
Gambill, J. Randolph
Hamilton, Antha A.
Haney, William K.
Hare, Francis W., Jr.
Jolly, Lewis E.
Modisett, Jackson W.
Modisett, Marcella S.
Moore, Martha
Pratt, Ralph M., Jr.
Prenatt, Francis
Shuck, William A.
Turner, Anna Goss
Turner, Oscar A. (S)
Zink, Robert O.

JOHNSON COUNTY
Barnes, Helen Beall
Bullers, Robert C.
Chambers, Pauline D.
Chappel, Alfred T.
Foster, Robert H. K.
Jones, Charles A.
Link, Charles W., Jr.
Machledt, John H.
Mock, Harry E., Jr.
Portteus, Walter L.
Province, Oran A.
Province, William D.
Records, Arthur W.
Snodgrass, Robert E.
Walters, Jack L.
Waymire, William M.

KNOX COUNTY

Bicknell
Byrne, Robert J.
Shanklin, Jack L.
Wilson, Guy H.

Oaktown
Springstun, George H.

Vincennes
Anderson, John B.
Anderson, Richard M.
Arbogast, Paul B.
Barrett, Thomas L.
Bartlett, Donald T.
Black, Boyd K.
Cantwell, Ed R.
Chattin, Herbert O.
Coffel, Melvin H.
Corsentino, Bart E.
Edwards, Edward T., Jr.
Ewing, Nathaniel D.
Hendrix, Charles E.
Kline, Charles D.
McCormick, Hubert D. (S)
McMahan, Virgil C.
Nichols, Robert J.
Schulze, William
Shaffer, Kenneth L.
Smith, Ralph O.
Smith, S. Joseph
Spencer, Frederic
Stein, Richard H.
Stewart, J. Frank W.
Sullenger, Adron A.
Vaughn, Walter R.
von der Lieth, William C.
Welch, Norbert M.

KOSCIUSKO COUNTY

Pierson, Pearl H.
Urschel, Dan L.
Wilson, Wymond B.

Warsaw

Arford, John E.
Cron, William J.
Dormire, Robert D.
Hashemi, Hossein
Haymond, George
Hillery, John
Hursey, V. G.
Schlemmer, George H.
Thomas, Everett W.

LAGRANGE COUNTY

Benedict, Charles D.
Flannigan, Harley F.
Lehman, Kenneth M.
Miller, Jerry A.
Studebaker, Lloyd R.
Williams, John H.
Yunker, Philip E.

LAKE COUNTY

Cedar Lake

Heckaman, Edward L.
King, Robert W.
Miller, Donald C.
Misch, William

Crown Point

Becker, Philip H.
Bernoske, Daniel G.
Birdzell, John P.
Carroll, Mary D.
Dhein, Donald T.
Doherty, Raymond J.
DuSold, Donald D.
Gray, Daniel E.
Gutierrez, Peter E.
Horst, William N.
Monroe, F. Bruce
Russo, Andrew E.
Steele, Everett B.
Troutwine, William R.

Dyer

Theobald, Sterling

East Chicago

Balingit, B. L.
Barron, Elmer A.
Beilks, C. A.
Bonaventura, Angelo P.
Boys, Fay F.
Brauer, Abraham A.
Braun, Benjamin D.
Broomes, Edward L. C.
Bryant, Edward G.
Claybourn, Norman L.
Dainko, Alfred J.
Fedor, Thomas
Fleischer, Jacob C.
Gardiner, H. Glenn
Geronimo, Manuel M.
Geronimo, Rita R. V.
Grosso, William G.
Harper, James W.
Hayes, Jesse D.
Hernandez, I. C.
Irish, Wilbur J.
Komoroske, John E.
Kopanko, Bernard F.
McGuire, Desmond F. (S)
Marks, Ora L.
Marquinez, Adoracin A.
Milan, Shisacki D.
Nisocia, John B.
Perdomo, Octavio J.
Ramos, John
Reitman, Paul H.
Serna, Carlos A.
Shapiro, Joseph
Shapiro, Seymour W.
Shulruff, Harry I.
Teegarden, Joseph A., Jr.
Teplinsky, Louis L.
Trepagnier, Francis B.
Walker, Adolph P.

Gary

Abramson, Allan L.
Alfano, Paul A.
Almquist, Carl O.
Alvarez, Paul
Ambrozaitis, Kazys
Amico, Pasquale J.
Armalavage, Leon J.
Alienza, R. T.
Barton, Reginald R.
Behn, Walter M.
Bendler, Carl H.
Bergal, Milton B.
Bernard, Marvin R.
Bills, R. James
Bills, Robert N.
Bisgyer, Jay L.
Borak, Walter J.
Bornstein, Herschel
Brady, Samuel G.
Brandman, Harry
Brincko, John
Bringas, Irineo B.
Brown, David B.
Brown, Leo R.
Bullard, Mattie J.
Burcham, James B.
Cahué, Antonio R.
Carberry, George A.
Carey, J. Albert
Carmody, Raymond F.
Chube, David D.
Cooper, Leo K.
Corrao, Gaetano
Daniel, Robert A.
Darling, Dorothy R.
Davis, Neal
De Bois, Elon
Dian, August J.
Dierolf, Edward J.
Donchess, Joseph C.
Dosado, Elpidio B.
Duncan, John S.
English, Hubert M.
Espy, Theodore R.
Fadell, Matthew J.
Fadul, Armand
Franklin, Philip
Brown, Jesse
Galante, Vincent J.
Gilles, Pierre
Glover, William J.
Goldberg, Harold B.
Golding, Robert F.
Goldstone, Adolph
Goldstone, Arthur
Goldstone, Joseph
Goldstone, Robert J.
Goldstone, Sidney R.
Grant, Benjamin F.
Gregoline, Amadeo F.
Hadey, James H.
Hedrick, James T.
Hodurski, Zigfield
Hoit, Leonard
Jahns, Albin A.
Johnson, Arnold L.
Johnson, Lonnie B.
Kaltenthaler, Albert
Kendrick, Frank J.
Khaton, Odessa M.
Kobrin, Meyer W.
Kolettis, John G.
Kopcha, Joseph E.
Korn, Jerome M.
Lazo, Vicente R.
Lebioda, Henry S.
Lewis, George N.
Lipschutz, Harold
Lipsey, Alfred J.
Loh, Hwei Ya (Chang)
Loh, Wei-Ping
Lorenty, Thaddeus B.
Lovell, Martin H.
Lutz, Georgianna
Lytwakiwsky, Anatol
Majsterek, Stanley L.
Manalo, Francisco S.
Marshall, Millard R.
Mather, J. Winford
May, Richard M.
Milos, Robert J.
Minczewski, Richard C.
Mitchell, Georgia B.
Molengraft, Cornelius J.
Moore, Edwin G.
Morris, Hyman R.
Moswin, Jack A.
Mott, William H.
Nelson, Walfred A.
Oberlander, Seymour
Olson, Leslie D.
Ornelas, Joseph P.
Parratt, Louis W.
Penn, Robert A.
Poracky, Bernard F.
Pruitt, J. Edward
Radigan, Leo R.
Ramos, Alfonso
Reynolds, James S.
Richter, Samuel
Riordan, John F.
Robinson, Walter K.
Rosenbloom, Philip J.
Ross, David E., Jr
Roth, Belvin I.
Roth, Leo
Rubin, Simon S.
Ryan, Hubert J.
Sala, Joseph J.
Sala, Walter R.
Schulz, Kurt J.
Scully, John T.
Shellhouse, Michael
Shevick, Alexander
Slama, George F.
Slama, John T.
Spellman, Frank W.
Stimson, Harry R.
Thomas, Daniel D.
Thomas, Gerald J.
Tsatsos, George C.
Turgi, Robert W.
Valencia, M. Monica
Verplank, Grover L. (S)
Voorhies, McKinley
Vye, J. P.
Walters, Eleanor
Washington, G. Kenneth
Weiskopf, Henry S.
Williams, Alexander S.
Williams, Edwin D.
Williams, Fred R.
Yast, Charles J.
Yocum, Paul S., Sr.
Yocum, Paul S., Jr.
Yocum, William S.
Young, George M.
Young, Robert L.
Zucker, Edward

Griffith

Lundeberg, Ralph A.
Purcell, Richard J.
Siekierski, Joseph M.

Hammond

Allegretti, Michael L.
Balaguer, Carmen V.
Beconovich, Robert
Bombar, Leslie E.
Costello, Albert J.
Cotter, Edward R.
Davis, Thomas N. III
Eggers, Henry W.
Egnatz, Nicholas
Eugenides, Tatiana
Fischer, Burnell
Fitzpatrick, William J.
Friedman, Isadore E.
Gevirtz, Milton B.
Hickman, A. Lee
Howard, William Harry
Husted, Robert G.
Hyndman, Lloyd G.
Jones, Eli S.
Kenney, Francis D.
Kolanko, Leon A.
Koransky, David S.
Kuhn, Arthur J.
Kuhn, Hedwig S.
LaFollette, Forrest R.
Lautz, Herbert A.
Long, Keith J.
McVey, Clarence A.
Mansueto, Mario D.
Marcus, Emanuel
Marks, Salvo P.
Mason, Richard L.
Mintz, Alfred M.
Modjeski, Joseph R.
Montes, Herminio Y.
Neal, Leonard W.
Palmer, Barron M. F.
Panares, Solomon V.
Peiffer, Geraldine M.
Pilot, Jean
Premuda, Franklin F.
Ramker, Daniel T.
Rasch, George C., Jr.
Rawlins, Carolyn M.
Remich, Antone C.
Rendel, Donald T.
Rhind, Alexander W.
Rosenthal, Carl
Rosevear, Henry J.
Row, Perrie Q.
Rubright, Robert L.
Sargent, Wallace B.
Schlesinger, Daniel J.
Schulfer, Richard J.
Schwartz, Mary M.
Smith, Jerald E.
Smitley, Roger P.
Solis, Roger V.
Sroka, Alexander G.
Stasick, Murray
Stern, Samuel L.
Tilka, Edward C.
Trachtenberg, Lee
Weissman, Charles G.
White, Gilbert H., Jr.
Wong, Samuel N.

Highland

Bakos, Edward R.
Santiago, Iluminada
Sroka, Stanley J.

Hobart

Carter, John O.
Faulkner, Donald J.
Kellar, Philip E.
Krsek, Archie J.
Markle, Joseph G.
Parker, Harry C. (S)
Pike, Warren H.
Reed, John
Weiss, John T.

Lowell

Mirro, John A.
Smith, Robert D.
Templin, David B.

Munster

Arbeiter, Herbert L.
Arrowsmith, James L.
Brenner, Howard B.
Chael, Thomas C.
Espino, Jose C.
Fox, Jack M.
Lanman, John U.
Larrabee, James F.
Madlang, Rodolfo M.
Mason, John C.
McLean, James S.
Navarre, Vincent J.
Paul, Eudell G.
Portney, Fred R.
Rudolph, Franklin G.
Santare, Vincent J.
Schwartz, Jack
Snyder, Jerome A.
Stevens, Edwin W.
Sweany, Stanford K.
Thomas, Thomas R.
Westhaysen, Peter V.
Wooden, Thomas F.

Portage

Carlson, Milton R.
Crise, John R.
Hoham, Fred D.
Kilmer, Warren L.
Lands, Robert M.
Noonan, Leo C.

Whiting

Angel, Virgil E.
Becker, Samuel W.
Ferry, John L.
Frankowski, Clementine E.
Greisen, Jack G.
Gustaitis, John W.
Kudele, Louis T.
Rudser, Donald H.
Silvian, Harry A.
Smith, Theodore J.
Stecy, Peter
Steen, Lowell H.
Troy, Jack M.
Weinberg, Benjamin A.

Out of State

Angeles, Uldarico A.
Bradley, Charles F.
Elliott, Ralph A.
Tyrrell, Thomas C.

LA PORTE COUNTY

Benz, Owen F.
Carter, William D.
Rohrer, Bryce B.
Moosey, Louis

La Porte

Backer, Mary B.
Carpentier, James R.
Carter, Fred S.
Cartwright, Jack D.
Datzman, Basil J.
Durham, Lowell J.
Elshout, Clem H.
Erwin, W. Robert
Feinn, Harry S.
Fischer, Carlton N.
Kelsey, Robert M., Jr.
Kelsey, Robert M., Sr.
Kepler, Robert W.
Kistler, James J.
Larson, Goyt O.
Mead, Frank E.
Mueller, Edwin C.
Muhleman, Charles E.
Philbrook, Seth S.
Predd, Adolph C.
Richter, John C.
Tabaka, Francis B.
Von Asch, George
Wolf, William E.

Michigan City

Armstrong, Thomas D.
Berkson, Myron E.
Brooks, H. L.
Cleveland, John B.
Fargher, Francis M.
Frost, Robert J.
Gardner, Melvin D.
Gardner, Russell A.
Gilmore, Robert W.
Gilmore, Russell A. (S)
Grotts, B. F.
Hillenbrand, Charles
Kemp, John T.
Kerr, Charlotte H.
Kerr, John E.
Kerrigan, John F.
Liddell, Charles K.
Marske, Robert L.
McGue, Frank J.
Milne, Walter S.
O'Brien, Raymond J.
Phillips, Johns H.
Plank, C. Robert
Stumer, Myer
Tunnell, Harry D.
Walters, William H.
Zalac, Donald A.
Weinstock, Adolph

Westville

Constan, Evan
Dieter, William J.
Hetman, Mitchell J.
Matthew, John R.
Meyer, Hans
Oster, Jack H.
Salzburg, Herbert E.
Sennett, Cecil M. (S)
Wygant, Marion D.

LAWRENCE COUNTY

Allen, L. Howard
Austin, Richard P.
Benham, Lawrence E.
Bridwell, Edgar
Dusard, Joseph C.
Emery, Charles B.
Hamilton, James R.
Hammel, Howard T.
Kasting, Gerald
Oswalt, James T.
Scherschel, John P.

MADISON COUNTY

Baughn, William L.
Bixler, Donald P.
Hensler, Benton M.
Jarrett, Paul E.
Jones, Horace E.
Kopp, Otis A.
Lamey, James L.
Lamey, Paul T.
Litzenberger, Sam W.
McClelland, Harry N.
Neale, Alfred E.
Nesbit, Leonard L.
Pierce, Fredrick H.
Polhemus, Warren C.
Starks, William O.
Swan, Richard C.
Webb, Harry D.
Wilder, Gordon B.
Williams, Robert H.

Elwood

Buechler, William F.
Hanson, Martin F.
Ploughe, Ralph R.

Frankton

Bishop, Harry A.

MARION COUNTY

Arbogast, John L.
Baird, Melvin S.
Byar, E. W.
Battersby, J. Stanley
Bauer, Thomas B.
Bibler, Lester D.
Brady, Thomas A.
Brayton, Lee
Brodie, Donald W.
Brown, Archie E.
Brown, Frances T.
Brown, Thomas C.
Browning, James S.
Burghard, Rolla D.
Call, Herbert F.
Campbell, Robert L.
Chernish, Stanley M.
Clark, Cecil P.
Clark, George A.
Clark, Lawson J.
Clevinger, William G.
Close, W. Donald
Conway, Chester C.
Conway, Glenn
Craft, Kenneth L. (S)
Culbertson, Clyde G.
Cullen, Paul K.
Culloden, William G.
Cuthbert, Marvin P.
Deal, Eleanor H.
Dearmin, Robert M.
DeArmond, Murray
Denny, James W.
Dill, Myron K.
Doughty, Samuel R., Jr.
Everly, Ralph V.
Fausset, C. Basil
Flick, John J.
Fortuna, Frank W.
Foster, Lee N.
Freed, Carl A.
Garceau, George J.
Gardiner, Sprague H.
George, Charles L.
Gillespie, Charles F.
Ginsberg, Stewart T.
Gormley, Joseph J.
Gosman, James H.
Gruber, Charles M.
Habegger, Elmer D.
Haggard, Edmund B.
Hann, Eldon C.
Hansell, Robert M.
Harger, Robert W.
Harris, Carl B.
Harvey, Verne K., Sr.
Hatfield, Nicholas W.
Haymond, Joseph L.
Healey, Robert J.
Hendricks, John W.
Hicks, Wilbur P.
Huber, Carl P.
Huddle, John R.
Iske, Paul G.
Jewett, Joe H.
Jones, David E.
Jones, Francis P.
Keiser, Venice D.
Ketcham, Jane M. (S)
Kim, Young D.
Kime, Edwin N. (S)
King, Harold
Kissel, Wesley A.
Klatte, Eugene C.
Kneidel, John H.
Kohlstaedt, Kenneth G.
LaDine, Clarence B.
Lamb, Emmett B.
Lasich, Anthony R.
Leffel, James M.
Levi, Leon
Lichtenberg, Melvin
Lingeman, Roger E.
Loughlin, Lawrence L.
Lukemeyer, George T.
McGrath, Michael F.
McIntyre, James M.
McKinley, A. David
McQuiston, Ralph J.
Manion, Marlow W.
Manning, K. Randolph
Marvel, Robert J.
Matthew, W. Burleigh
Megenhardt, Dennis S.
Melin, John R.
Mentendiek, Maurice H.
Mericle, Earl W.
Merrell, Paul
Mershon, Jack B.
Mertz, John H. O.
Michael, Isaac E.
Miller, Jerry R.
Morgan, Margaret E.
Morton, Joseph L.
Muller, Victor H.
Moenning, W. P.
Nourse, Myron H.
Nafe, Cleon
Ochsner, Harold C.
Offutt, Andrew C.
Otten, Claude F.
Owens, Tracy C.
Pandolfo, Harry
Paulissen, George T.
Peck, Franklin B., Jr.
Pierce, Emmett, Jr.
Rabb, Frank M.
Ramsey, Frank B.
Reed, Philip B.
Reilly, Eva F.
Rice, Raymond M.
Ritchey, James O. (S)
Robb, John A.
Rohn, Robert J.
Romberger, Floyd T., Jr.

Ross, Alexander T.
Ruddell, K. R.
Rudesill, Cecil L. (S)
Russel, John R.
Ryan, Glen V.
Sanders, Harry M.
Schlaegel, Theodore F., Jr.
Schuchman, Gabriel
Sedam, Herbert L.
Sellner, George W.
Sherster, Harry
Shullenberger, Wendell A.
Shumacker, Harris B., Jr.
Sicks, Okla W.
Simmons, James E.
Smith, William B.
Spivey, Russell J.
Stanley, John S.
Stephens, Donald E.
Stoelting, Vergil K.
Storey, Joseph L.
Southworth, John W.
Talbott, Dan E.
Taylor, Clifford C.
Test, Charles E.
Thornton, Harold C.
Torrella, Jose A.
Trusler, Harold M.
Tyner, Harlan H.
Wilkens, Irvin W.
Williams, Clifford L.
Wilson, Fred M.
Wise, William R.
Wishard, William N., Jr.
Wood, Donald E.
Yacko, Michael L.
Young, John M.

Out of State

Fosgate, Harold L.
Hurt, LaVerne B.
Nelson, John W.
Paynter, Morris B.

MARSHALL COUNTY

Argos

Hampton, James N.

Bourbon

Connell, Vactor O.

Bremen

Bowen, Otis R.
Burket, Cecil R.
Cripe, Earl P.
Schreiner, John E.
Stine, Marshall E.

Culver

Baker, Milan D.
Norris, Ernest B.

Plymouth

Connell, Paul S.
Coursey, James O.
France, Lloyd C.
Kubley, James D.
Peterson, Ronald L.
Reed, Robert G., Jr.
Rimel, James F.
Robertson, James S.
Vore, Louring W.

MIAMI COUNTY

Barnett, Ralph E.
Ferrara, Donald W.
Ferrara, Samuel J.
Herd, Cloyn R.
Hill, Lloyd L.
Malott, Fred R.

MONTGOMERY COUNTY

Alexander, Stephen J.
Blix, Fred M.
Burks, Jess E.
Byrne, L. E.
Cornell, Robert A.
Daugherty, Fred N.
Davis, William H.
Dodds, Wemple
Eggers, Richard
Fisher, Frank
Haller, Thomas C.
Humphreys, John W.
Kindell, Hurschell D.
Kinnaman, H. A.
Kirtley, James M.
Lingeman, Byron N.
Millis, Samuel C.
Otten, Ralph E.
Parker, Carl B.
Peacock, Norman F.
Pierson, Robert H.
Priebe, Fred H.
Richards, Edgar E.
Shannon, Wesley E.
Sharp, John Leon
Thompson, Claude N.
Viray, Victoriano G.
Wallace, Hawthorne C.

ORANGE COUNTY

Hodgin, Philip T.
Keseric, N. E.
Schoolfield, William E.
Sugarman, Benjamin E.

Paoli

Clark, Ivan A.
Manship, Stanley S.
McCalla, Charles X.
Spears, John K.

OWEN-MONROE COUNTIES

Holland, Philip T.
Hrisomalos, Frank N.

PARKE-VERMILLION COUNTIES

Bloomer, Richard S.
Britton, Welbon D.
De Renne, William L.
Dowell, Emil H.
Evans, Frederick J.
Fell, Robert M.
Goodrum, William R.
Harstad, Casper
Herzberg, Milton
Kempf, Gerald F.
Lauer, Dorothy B.
Merrell, B. M.
Pace, J. V.

PERRY COUNTY

Bush, Hargis R.
Dukes, David A.
Gilbert, Robert G.
Herr, John W.
James, John M.
Kemker, Bernard P.
Lohoff, Lewis C.
Neifert, Noel L.
Ress, Gene E.
Smith, Fred, Jr.

PORTER COUNTY

Chesterton

Cohen, H. L.
Griffin, Joseph P.
Hall, Thomas C.
Harless, Clarence M.
Read, John E.
Robertson, William C.

Valparaiso

Brown, James C.
Covey, Thomas J.
Davis, Carl M.
DeGrazia, Eugene J.
Dittmer, Jack E.
Dittmer, Thomas L.
Eades, Ralph C.
Griffin, Charles G.
Koenig, Robert L.
Lee, Robert Y.
Makovsky, Theodore
O'Neill, Martin
Sacks, Leonard Z.
Scheimann, Lois
Schmidt, Richard H.
Stoltz, Robert M.
Vietzke, Paul C. F.

Wheeler

Gordon, Joseph L.

POSEY COUNTY

Boren, Paul R.
Boyle, Carroll L.
Challman, William B.
Crist, John R.
Ropp, Harold E.
Woods, Arba L. (S)

PULASKI COUNTY

Thompson, William R.

PUTNAM COUNTY

Dettloff, Frederick R.
Ellett, John, Jr.
Johnson, James B.
Nichols, Anne Sackett
Schauwecker, Cleon M.
Smith, A. Wilson
Steele, Dick J.
Tennis, George T.
Tipton, William R.
Veach, Lester W.
Veach, Richard L.
Wiseman, V. Earle

RANDOLPH COUNTY

Farmland

Nixon, Byron
White, Harvey E.

Lynn

Harmon, Wayne
Jordan, Leo E.

Modoc

Shallenberger, Henry R.

Ridgeville

Potter, Richard M.

Union City

Birum, Patricia J.
McClure, Morris E.
Phipps, Leland K.

Winchester

Dininger, William S.
Koch, Howard W.
Painter, Lowell W.
Slick, Crystal R.
Sparks, Paul W.

RIPLEY COUNTY

Hisrich, Lloyd W.
Lippoldt, Charles L.
Warn, William J.

ST. JOSEPH COUNTY

Elkhart

Zeitler, Philip S.

Mishawaka

Christophel, Verna A.
Farner, James E.
Ganser, Richard A.
Goethals, Charles J.
Mahank, Camiel C.
Martin, Charles F.
Sirlin, Edward M.
Spalding, Wendell L.
Templeton, Ames R.
Walerko, Frank
Walters, Charles E.
Whitlock, Francis C.
Whitlock, Merle E.
Wurster, Herbert C.
Zimmer, Henry J.

New Carlisle

Luzadder, John E.

Osceola

Warrick, Homer L.

Rolling Prairie

Helman, Harry W. (S)

South Bend

Backs, Alton J.
Bechtold, Samuel E.
Bennett, Jene R.
Berke, Robert D.
Biasini, Benedict A.
Bickel, David A.
Bixler, Louis C.
Bodnar, Leslie M.
Booth, Franklin M.
Buchanan, Wallace D.
Butts, Milton A.
Cassady, James V.
Cassady, John R.
Clark, William H.
Colosey, Frederick J.
Cook, Gordon C.
Culbertson, Carl S.
Davis, Edward A.
Denham, Robert H.
Devoe, Kenneth
Dietl, Ernest L.
Dodd, Robert D.
Dolezal, Bernard J.
Dunlap, D. Logan
Eades, R. Charles
Ebin, Judah L.
Edwards, Bernard E.
Egan, Sherman L.
English, John P.
Ericksen, Lester G.
Feferman, Martin E.
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Zeiger, Irvin L.

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Geller, Samuel
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Loving, Jury B.
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Caylor, Truman E.
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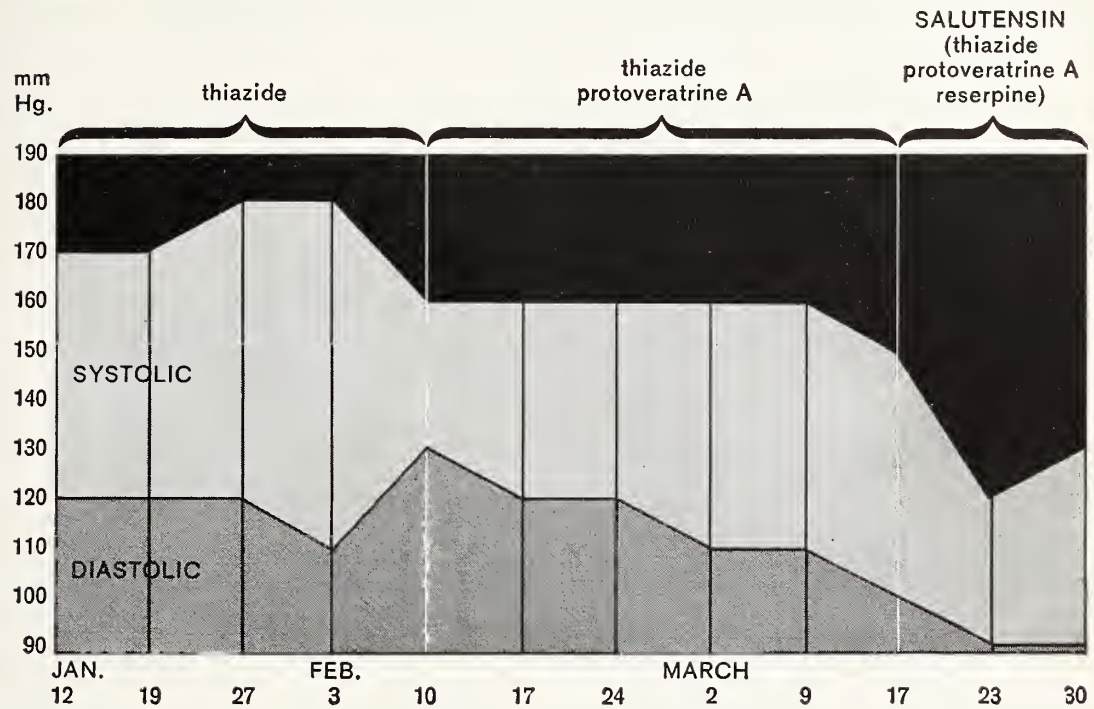
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References: 1. Fries, E. D.: In Hypertension, ed. by J. H. Moyer, Saunders, Phila., 1959 p. 123. 2. Fries, E. D.: South M. J. **51**:1281 (Oct.) 1958. 3. Finnerty, F. A. and Buchholz, J. H.: GP **17**:95 (Feb.) 1958. 4. Gill, R. J., et al.: Am. Pract. & Digest Treat. **11**:1007 (Dec.) 1960. 5. Brest, A. N. and Moyer, J. H.: J. South Carolina M. A. **56**:171 (May) 1960. 6. Wilkins R. W.: Postgrad. Med. **26**:59 (July) 1959. 7. Gifford, R. W., Jr.: Read at the Hahnemann Symp. on Hypertension, Phila. Dec. 8 to 13, 1958. 8. Fries, E. D., et al.: J. A. M. A. **166**:137 (Jan. 11) 1958. 9. Ford, R. V. and Nickell, J.: Ant. Med. & Clin. Ther. **6**:461, 1959.

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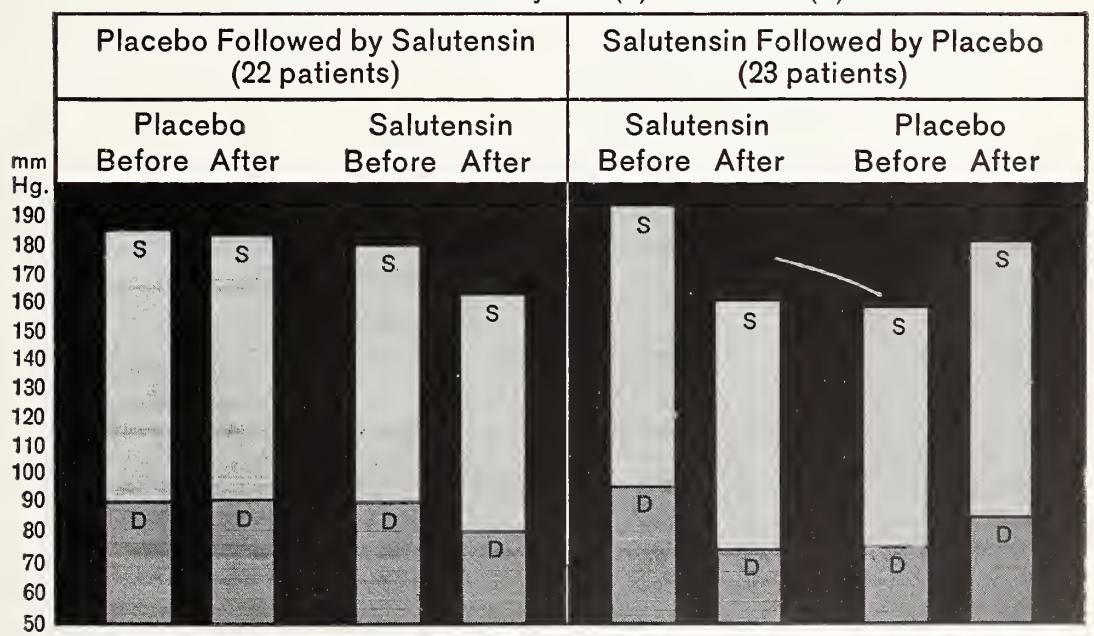
11 WEEKS TO LOWER BLOOD PRESSURE TO DESIRED LEVELS BY SERIAL ADDITION OF THE INGREDIENTS IN SALUTENSIN IN A TEST CASE

(Adapted from Spiotta, E. J.: Report to Department of Clinical Investigation, Bristol Laboratories)



3½ WEEKS TO LOWER BLOOD PRESSURE TO DESIRED LEVELS USING SALUTENSIN FROM THE START OF THERAPY IN A "DOUBLE BLIND" CROSSOVER STUDY

Mean Blood Pressures–Systolic (S) and Diastolic (D)



In this "double blind" crossover study of 45 patients, the mean systolic and diastolic blood pressures were essentially unchanged or rose during placebo administration, and decreased markedly during the 25 days of Salutensin therapy. (Smith, C. W.: Report to Department of Clinical Investigation, Bristol Laboratories.)

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Medicine At Law

DECISIONS AND OPINIONS

Highlights of recent court actions pertaining to health and medicine from *The Citation* prepared by the Law Division of AMA.

Liability for Faulty Circumcision Upheld —A judgment against a hospital and three physicians for damages for the loss of a child's glans penis following a circumcision was affirmed by an intermediate appellate court in California. The court held that there was no reversible error in instructions to the jury.

When the child was released from the hospital after the circumcision, a black spot was noticed at the end of his glans penis. Because the black spot continued to grow, the child was brought back to the hospital on a Saturday. The physicians who examined the child in the hospital's emergency room told the parents to bring him back on Monday so that specialists could examine him. When the child was returned on Monday, his condition was such that the glans penis had to be amputated.

The appellate court said that a jury has two issues to decide where liability is based on the doctrine of res ipsa loquitur: first, whether the evidence is sufficient to permit an application of that doctrine, so that an inference of negligence may be drawn from the untoward result; and, second, whether such inference is rebutted by evidence that there was no negligence. Although instructions on the first issue were omitted, the court held that there was no prejudicial error, since the defendants failed to present correct instructions when they had an opportunity to do so, and since there was strong evidence that the injury would not have occurred in the absence of negligence.

The court also ruled that an instruction that a doctor has a duty to fully disclose surgical risks should not have been given, but held that it was not prejudicial, because the jury would have considered it absurd to apply it so as to require the physician to advise the parents that the loss of the child's glans penis might result from the circumcision. On the other hand, the court upheld instructions on the necessity for calling in a specialist and on the standard of care for a specialist.—*Valentine v. Kaiser Foundation Hospitals,* Cal. Rptr. 26 (July 26, 1961).

Suspension of License for Income Tax Evasion Confirmed—The action of the Board of Regents in suspending the license of a physician for one year because of his conviction and imprisonment for attempting to evade federal income taxes was confirmed by an intermediate appellate court in New York. The committee on grievances had recommended a six-month suspension, but the Board had increased it to one year.

There was no dispute over the validity of the charges against the physician, but it was urged in mitigation that he had been sufficiently punished by reason of the notoriety and disgrace of the prison sentence and the large cost of the defense. It was also urged that because of his age and the condition of his health the one-year suspension would destroy his only means of livelihood. The court said that there was no abuse of discretion by the Board, which had

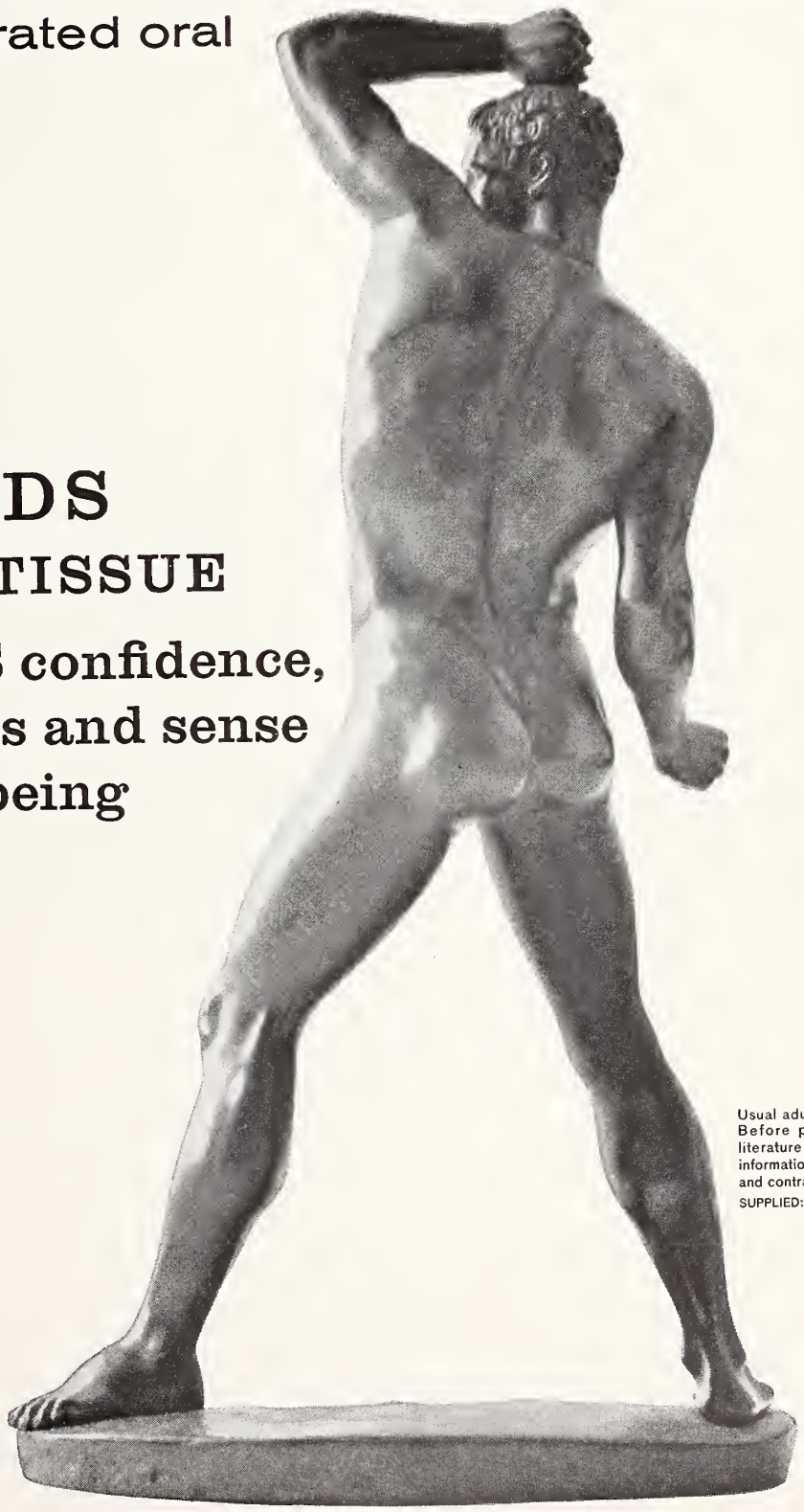
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considered these arguments together with the fact that the physician's license had previously been suspended for a year.—*Application of Palermo*, 221 N.Y.S. 2d 91 (N.Y., Nov. 16, 1961).

Trial Unavoidable in Pre-Operative Mishap—A surgeon, an anesthesiologist, and a resident must all stand trial in a suit brought in behalf of a patient who suffered brain damage and became totally incapacitated while being prepared for a mastoid operation. The Kansas Supreme Court has upheld a ruling that the complaint was sufficient to require trial with respect to the surgeon and the resident, and has reversed a ruling that the complaint was insufficient with respect to the anesthesiologist.

The complaint contained two counts. One alleged specific negligence by the resident for which both the surgeon and the anesthesiologist were said to be responsible. The other alleged liability on the basis of the doctrine of res ipsa loquitur, under which negligence is inferred from an untoward result which does not ordinarily occur in the absence of negligence.

It was claimed that the resident, after administering an anesthetic to the patient, carelessly inserted an endotracheal tube into the esophagus of the patient, instead of into his larynx. It was claimed that this resulted in a deprivation of oxygen which resulted in the brain damage. It was said that the surgeon and the resident should have detected and corrected the error. Because of this incident, the operation was not performed.

The appellate court held that there was nothing objectionable about pleading specific negligence in one count and relying on the doctrine of res ipsa loquitur in the other. It also held that the allegations of direct supervision and control over the resident by both the surgeon and the anesthesiologist were sufficient to assert the liability of each of them for his conduct. A person may simultaneously be an employee of two employers, even if they are not joint employers, the court said.

The court also held that the complaint was sufficient on both counts. The allegations would permit proof, in the alternative, of either specific negligence or of a factual situation where it could be said that the injury would not have occurred in the absence of negligence. Two judges dissented in part.—*Voss v. Bridwell*, 364 P. 2d 955 (Kan., Sept. 18, 1961).

Hospital Exonerated from Liability for Patient's Injury—A patient whose back was injured just before he left a hospital had no cause of action against the hospital. Dismissal of his suit was affirmed by an intermediate appellate court in Louisiana.

The patient claimed that the plumbing facilities in his room had been out of order during his entire stay at the hospital, which necessitated his use of a bathroom down the hall. He said that a nurse left the bottom drawer of a dresser in his room open while he was at the bathroom just before leaving the hospital. Upon returning to the hospital room, he alleged, he had squatted down to look at his chart and had bumped his back into a corner of the dresser drawer.

The appellate court said that the fact that the plumbing was out of order was not the proximate cause of the patient's injury. It held that there was no negligence in leaving the dresser drawer open, since the drawer was clearly visible and should have been seen by the patient in the exercise of reasonable care. The court also ruled that the patient was guilty of contributory negligence.—*Walton v. Aetna Casualty & Surety Co.*, 136 So. 2d 317 (La., Dec. 27, 1961).

No Liability for Failure to Detect Fracture—Failure to detect a fracture of the neck of the femur of an elderly woman did not give rise to liability on the part of the doctors who examined her or the hospital where she was examined. The patient's damage suit was dismissed by a federal district court in Louisiana for lack of any medical testimony establishing professional negligence.

The x-rays taken in the hospital's emergency room did not show the fracture. For the lateral view, her leg was rotated less than 40 degrees, since further manipulation of the leg would have caused increased pain.

Continued

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Caution: Do not administer NEPHENALIN with epinephrine. The two medications may be alternated at 4-hour intervals. NEPHENALIN should be administered with caution to patients with hyperthyroidism, acute coronary disease, cardiac asthma, limited cardiac reserve, acute myocardial damage, and to those hypersensitive to sympathomimetic amines. Phenobarbital may be habit forming. THOS. LEEMING & CO., INC., New York 17, N.Y.

Two days later, a clinical examination showed a full range of motion in the hip, and no further x-rays were taken. The patient was discharged from the hospital without being advised to return for further checking or to call her family doctor if pain continued. After suffering for six months, the patient had additional x-rays taken which showed the fracture and also showed that her leg had been shortened by one and one-fourth inches.

Although the hospital and the doctors knew that the patient was suffering from osteoporosis, which made her bones predisposed to fracture, four well qualified orthopedic surgeons testified that the care received by the patient was in conformity with that ordinarily employed by doctors of good standing in the community. Two of these medical witnesses were called by the patient.

The court dismissed the suit, but took occasion to criticize the medical profession. It said that the patient's case foundered before it began on the "rock of self-interest." It also said, "Understandably, doctors are not anxious to indict fellow practitioners for malpractice. Common survival and mutual protection dictate this lack of interest. This is particularly so where, as here, the accused doctors are eminent in their profession and enjoy an outstanding reputation in the community."—*Leavell v. Alton Ochsner Medical Foundation,* 201 F. Supp. 805 (D.C., E.D. La., Feb. 8, 1962).

Decision in Bed Rail Case up to Jury—A trial court erroneously dismissed a suit against a hospital for damages resulting from a patient's fall in the absence of bed rails. The Oklahoma Supreme Court ruled that the suit should have been submitted to the jury.

Evidence showed that the patient had been admitted to the hospital in a "state of disturbed consciousness" and in a weak condition. Her husband advised that side rails be put on the patient's bed. After consultation with the attending physician, a nurse promised that the rails would be installed. She directed a nurse's aide to get the rails, and they were placed in the hall outside the patient's room. Several hours later, a noise was heard and the patient was found face down on the floor next to the bed. Only after the patient was lifted back into bed were the side rails installed. The evidence showed that the patient suffered injuries from the fall sufficient to warrant at least nominal damages.

The court said that, after the warning by the husband and the promise that side rails would be installed, the hospital had an obligation to exercise reasonable care and diligence in installing the rails. This was sufficient for submission of the case to the jury, the court ruled. It was not necessary to prove that, in the light of the patient's condition, the hospital had a duty to foresee that the patient might fall if side rails were not installed—*Sanders v. St. John's Hospital & School of Nursing,* 369 P. 2d 165 (Okla., Feb. 27, 1962). ◄



I-HOPE NEEDS FINANCIAL AID IN SOCIALIZED MEDICINE BATTLE

I-HOPE needs the help of every Indiana physician if it is to be successful this fall in its effort to elect men to Congress who believe in and vote for preservation of an economy free of governmental regulation and control.

I-HOPE (Indiana Health Organization for Political Education) is up against the stiffest battle it has faced in its young existence. Proponents of socialized medicine will not lack for funds this summer to help their candidates at the polls next November.

At least four Indiana Congressmen—all friends of the private practice of medicine by deed and vote—have been marked for the political graveyard by the socialistically-inclined welfare staters.

I-HOPE had its baptism of political fire in the 1960 general elections with singularly successful results. If it hopes to repeat that pattern in 1962 it must have the support of more and more physicians who truly believe in the principles of private initiative.

I-HOPE has no dues, no assessments. It must depend entirely upon voluntary support.

Will YOU help I-HOPE battle for your cause?

The organization's address is: PO Box 55421, Uptown Station, Indianapolis 5, Indiana.

Interstate Offers Varied Program in October for GP's

The 47th annual Scientific Assembly of Interstate Postgraduate Medical Association, to be held at the Palmer House, Chicago, October 1-4, offers 20½ hours of varied teaching (and A.A.G.P. Category II credit) for a registration fee of $10. The program is especially suited to the needs of generalists, as all lectures, panels and clinics are closely related to medical problems familiar to the physician who does not devote his time to a single specialty.

Panels on "Arthritis", "Diabetes", "Tranquilizers and Energizers", the "Medical and Surgical Treatment of Duodenal Ulcers", and "Newer Treatment of Hypertension" are important parts of the three and one-half day program. The 1962 Assembly program offers educational exposure to more than 90 prominent medical educators, as teachers.

Those interested in full details of the program are urged to write to N. A. Hill, M.D., Secretary, Interstate Post-graduate Medical Association, Box 1109, Madison 1, Wisc.

A.E.C. Announces 138 Grants To Educational Institutions

The Atomic Energy Commission has announced 138 grants to 132 educational institutions for the purchase of laboratory equipment and fabrication of neutron and gamma sources to initiate or expand curricula in the life and physical sciences and engineering related to nuclear energy. The grants totaled $1,477,885. In Indiana, Rose Polytechnic Institute received $744.00; Taylor University was granted $8,200.00; DePauw University received $21,000.00 and Purdue University $55,000.00.



COL. JOHN J. BARTON (left) and First Sgt. Elmer Paul, Indiana State Police, with the Medical Tribune Auto Safety Award presented June 8, 1962.

INDIANA STATE POLICE WIN NEWSPAPER'S AUTO SAFETY AWARD

The Medical Tribune, an independent medical newspaper, gave its first Auto Safety Awards honoring "lifesaving achievement in the service of health" to the Indiana State Police and to Dr. Fletcher Woodward of Charlottesville, Virginia.

The safety awards were established as a part of the Medical Tribune's campaign to alert doctors to their role in reducing highway deaths and injuries. One of the awards was designed for an individual, the other for an organization working with the cooperation of the medical profession.

Dr. Woodward was the first chairman of the American Medical Association's Committee on the Medical Aspects of Automobile Injuries and Deaths, and has been a leader in this field for many years.

The Indiana State Police was cited for its initiation of Auto Crash Injury Research, which, since its inception on a small scale as far back as 1947, has spread to national significance and is the outstanding study of the epidemiology of traffic deaths and injuries. The advice and cooperation of the Indiana State Medical Association was sought and obtained at an early stage of the study. The Hoosier medical profession, and in fact, all citizens of the state can take pride in the life-saving accomplishments of a splendid State Police organization.

Dr. Gene E. Ress, former secretary of the Perry County Medical Society, is currently serving in the Army at Ft. Eustis, Va. All future communications should be directed to L. C. Lohoff, M.D., 507 Main St., Tell City.

Blue Shield Out-Patient Surgery Benefits Liberalized

Blue Shield surgical benefits were liberalized several years ago to include payments for cutting surgery done in the out-patient department of a hospital. This eliminated such out-patient procedures as cautery, cystoscopy, aspiration and pneumothorax from payment. Effective June 15, 1962 the Blue Shield policy is further changed to permit the extension of benefits to non-cutting surgical procedures. The list includes, but is not limited to the following: cautery, bronchoscopy, cystoscopy, esophagoscopy, aspiration of a joint, aspiration of a bursa, pneumothorax, oleothorax, transfusions and probing of lacrimonasal duct.

Two Local High School Students Win In Prize Essay Contest

The prize essay contest of the Association of American Physicians and Surgeons for high school students, conducted in cooperation with state and county medical societies all over the country, produced two prize winners in Indiana in 1962. Paul Brown of Bloomington won the fourth prize of $100.00, and Barbara Jones of Anderson also won $100.00 as the fifth prize. Caroline Clower of Chesterfield, South Carolina won the first prize of $1,000.00 for her essay on the subject "The Advantages of the American Free Enterprise System Over Communism".

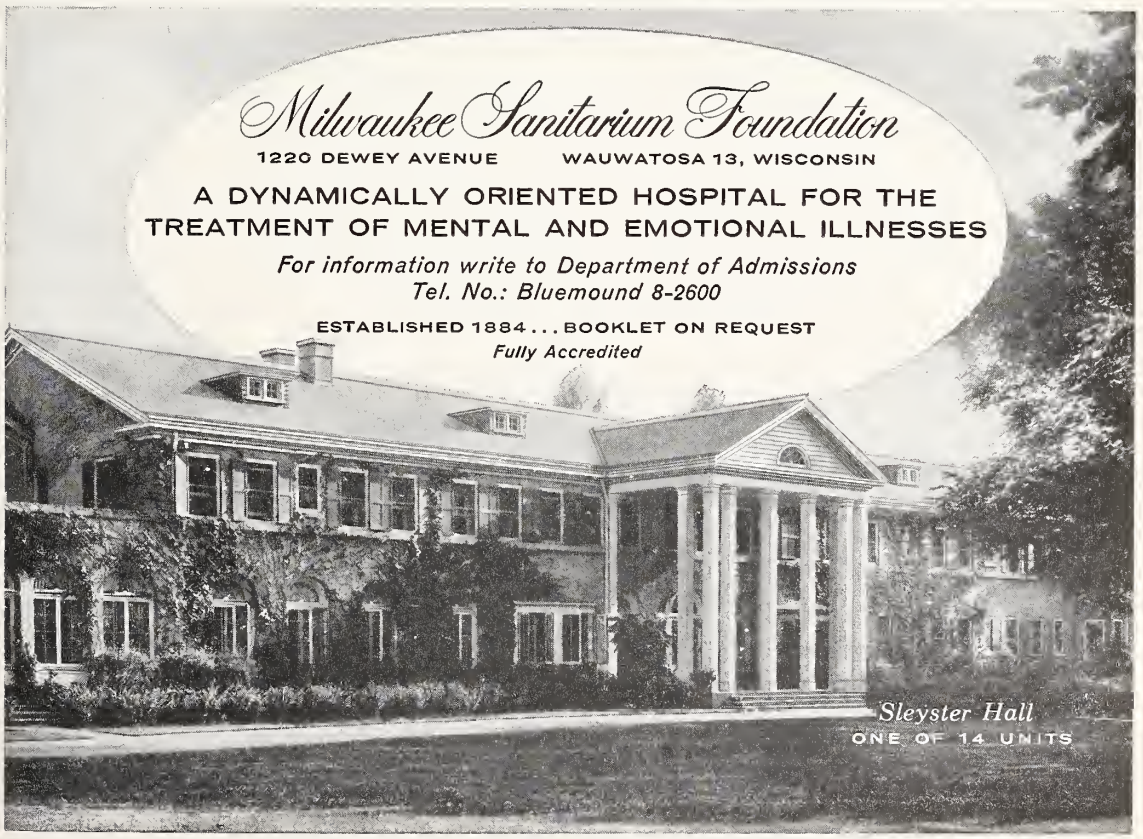
The American Society of Internal Medicine has announced the appointment of Dr. Paul Tischer of Indianapolis as co-chairman of their Public Relations Committee, and of Dr. Kenneth G. Kohlstaedt of Indianapolis to their Committee on Research and Education.

Three New Scientific Films Available to Physicians

Three new scientific films, parts of a new series titled "Clinical Entities" have been recently released. They have been produced by Wayne State University College of Medicine under a grant by Eli Lilly and Company. The three are on "Diabetes in Youth", "Angina Pectoris" and "Coronary Occlusion". Other films will follow. The films are available on temporary free loan basis to medical societies, hospitals, health departments and medical conventions. Write: Audio-Visual Utilization Center, Wayne State University, Detroit, 2.

[The scientific program of the 113th annual convention of the Indiana State Medical Association is acceptable for 11 hours of Category I credit by the American Academy of General Practice.]

Continued



Three New Members Appointed To I.U. School of Medicine Faculty

Appointments of three new faculty members in the Indiana University School of Medicine, two of them to fill vacancies, have been announced by Dean John D. VanNuys.

They are Drs. Hooshang Taybi, now at the University of Oklahoma medical school, to be associate professor of radiology beginning Aug. 1; James E. Carter, who served his internship and residency at the I.U. Medical Center, to be assistant professor of obstetrics and gynecology, effective July 1, and Raymond R. Paradise, who for the past two years has been a U.S. Public Health Service Fellow at the University of Southern California, to be assistant professor of pharmacology and anesthesiology, also effective July 1.

Dr. Taybi, who was born in Iran and received his advanced medical training at New York University, will replace Dr. Eugene C. Klatte, who has been appointed chairman of the department of radiology at Vanderbilt University. Dr. Paradise will replace Dr. R. W. Gardier, who recently was appointed to the University of Texas Medical Branch at Galveston. Paradise will in effect serve as director of research in anesthesiology.

Syracuse Physician Honored

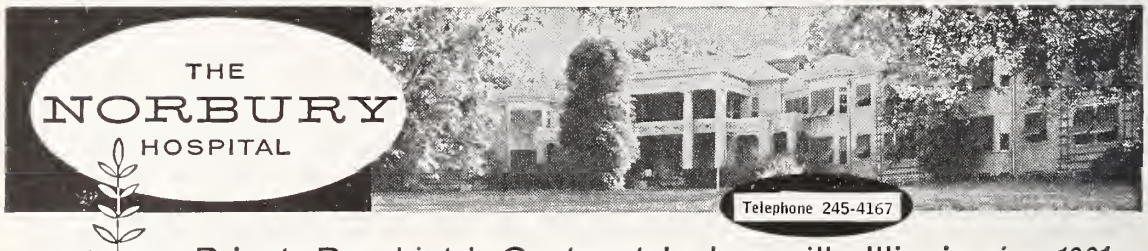
Dr. Jack P. Clark, Syracuse physician, has returned from Las Vegas, Nev., where he received the Ross Award plaque and a $1,000 check as one of two national winners of the special award.

The Ross Award is given annually to two physicians who write articles that are published in "G.P.," a national magazine published by the American Academy of General Practice, of which Dr. Clark is a member.

Dr. Clark's article was entitled, "Clinical Management of Radiation Exposure Due to Atomic Explosion." The article appeared in the November issue of "G.P."

American College of Surgeons Presents Varied Postgrad Courses

Fifteen postgraduate courses in various subjects in medicine and in the medical specialties will be presented during 1962 and 1963 under the auspices of the American College of Physicians. The concentrated courses will average five days in duration and will be conducted at several medical centers throughout the United States. Tuition fee for members of the College will be $60.00, for non-members $80.00. Detailed information may be obtained by addressing Dr. Edward Rosenow, Jr., M.D. at 4200 Pine Street, Philadelphia 4. ◄



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FUTURE MEETINGS, SEMINARS, COURSES

Endocrinology Postgraduate Symposium Offered in September

"Endocrinology of Children and Young Adults" is to be the subject of a Postgraduate Symposium at the University of Oklahoma Medical Center, in Oklahoma City, September 26, 27 and 28. Six medical authorities will serve as guest speakers. Lectures will be in the fields of thyroid disease, reproduction, sex anomalies, diabetes, pituitary and adrenal problems and genetic influences in endocrine disease and other areas. Physicians in military service, interns and residents may participate without fee, all others $25.00. Write the Office of Postgraduate Education, University of Oklahoma Medical Center, Oklahoma City, 4.

American Board of Obstetrics And Gynecology Written Exams Set

The next scheduled Part I (written) Examination of this Board will be held in various examining centers of the United States, Canada, and military bases outside of the continental United States on Friday, Dec. 14, 1962, at 2:00 P.M.

Candidates eligible to take this examination will be notified on or about November the first where to appear for examination.

The 1962 Bulletin of this Board is now available and prospective applicants are urged to request this brochure and thoroughly familiarize themselves with the current rules and regulations before making application. Bulletins may be obtained by writing to—Robert L. Faulkner, M.D., Executive Secretary and Treasurer, American Board of Obstetrics and Gynecology, 2105 Adelbert Road, Cleveland 6, Ohio.

Diplomates are requested to inform the Secretary's office of their change in address.

13th Biennial Congress in September

The International College of Surgeons will conduct its 13th Biennial Congress at the Waldorf-Astoria Hotel in New York City from September 9 to 13. General and surgical specialty programs will be presented as well as a program for surgical nurses and a new surgical seminar for junior candidates. Non-members may attend the scientific sessions. The registration fee for members is $10, for non-members $15. Interns, residents, active members of the armed forces, and nurses will be admitted without fee. ◄

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Deaths

Chester A. Marsh, M.D.

Dr. Chester A. Marsh, 75, Hoosier physician for more than 40 years, passed away June 30 in a Glendale, Calif. hospital after an extended illness.

Retiring in 1958, Dr. and Mrs. Marsh moved to Los Angeles, California. Dr. Marsh's early life was spent in southern Indiana. He was graduated from Butler University and I.U. Medical School and served in France in World War I. After returning from service, he joined the staff of Indiana Village for Epileptics at New Castle.

Dr. Marsh was a member of the Henry County Medical Society and a Senior Member of ISMA.

James E. McCabe, M.D.

Dr. James E. McCabe, 87, former Otterbein physician, passed away June 3 at the Indiana State Soldiers Home, Lafayette, where he had been residing since 1959. He had been in failing health for three years.

Dr. McCabe practiced medicine at Otterbein from 1919 to 1959 and for over 20 years had been Benton County health officer. He retired in 1959. He was a member of the ISMA Fifty-Year-Club.

Emil F. Steinkamp, M.D.

Dr. Emil F. Steinkamp, a member of the ISMA Fifty-Year-Club and a retired Dubois County physician, died June 21 at Stork Memorial Hospital after several weeks illness.

Dr. Steinkamp retired about five years ago after more than 50 years of practicing medicine in the Huntingburg area. He was a 1903 graduate of the University of Louisville School of Medicine in Louisville, Ky.

Russell J. Spivey, M.D.

Dr. Russell J. Spivey, 59, former president of the Indianapolis Medical Society, passed away June 11 at St. Vincent's Hospital.

Dr. Spivey was a member of the Marion County Welfare Board and a former president of the Indiana Academy of General Practice. He also was on the staff of Methodist, St. Vincent's and Community Hospitals.

Born at Delphi, Dr. Spivey lived in Indianapolis 35 years. He was Marion County delegate to the ISMA in 1959 and 1960 and served on the ISMA Grievance and Inter-Professional Relations Committees. ◄

District News

Second District

Dr. Philip T. Holland was elected president of the Second District Medical Society at Linton, June 6. Other newly elected officers include Drs. Hugh S. Ramsey, Bloomington, vice president and John S. Brown, Carlisle, secretary-treasurer. Dr. C. Philip Fox was re-elected director of Blue Cross and Dr. Holland was re-elected alternate councilor.

Eighth District

Members of the Eighth District Medical Society, at their June 13 meeting, elected Drs. Eugene M. Gillum, Portland, president and Ralph M. Steffy, Portland, secretary-treasurer.

Ninth District

The Ninth District Medical Society Meeting was held May 24 at Carmel. Speakers for the meeting included Dr. J. S. Battersby, who talked on "Emergency Treatment of Chest and Abdominal Injuries" and Dr. Richard Nay, who spoke on his recent "Experiences in the Congo."

Eleventh District

The Eleventh District Medical Society met May 16 at Kokomo. Speakers during the afternoon session were Drs. Glen W. Irwin, Jr. and Eugene Levitt. The topic of the scientific program was "Operation Obstinate Obesity." ◄

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Association News

EXECUTIVE COMMITTEE

June 25, 1962

Meeting called to order at 7:30 a.m., with the following members present: Don E. Wood, M.D., chairman; Harry R. Stimson, M.D.; Maurice E. Glock, M.D.; John M. Paris, M.D., Irvin W. Wilkens, M.D.

James A. Waggener, executive secretary.

Treasurer's Office

Dr. Wilkens made a financial report and moved that the Association sell the $10,000.00 issue of bonds which are currently above par value. Motion seconded by Dr. Paris, and carried.

The secretary presented a loan agreement between the Indiana National Bank and the Indiana State Medical Association and a letter from Mr. Robert Hollowell, legal counsel, concerning the agreement, and upon motion of Drs. Paris and Glock the Committee voted to accept and sign the loan agreement as written.

Organization Matters

1. Indiana Farm-City Committee. Letter from the Indiana Farm-City Committee requesting a contribution from the Indiana State Medical Association was turned down on motion of Drs. Glock and Stimson.

2. Dedication arrangements. The program for Sunday, July 15, was reviewed and upon motion of Drs. Paris and Stimson the Governor, Mayor, senators and congressmen are all to be invited to attend the dedicatory services and the Governor and Mayor are to be requested to make a few appropriate remarks. Motion adopted by consent.

By consent it was also agreed that Dr. John D. VanNuys and President Herman B Wells be invited to sit on the speakers' platform, and that a special invitation be issued to the deans of the Dental and Veterinary Schools, to Dr. A. C. Offutt, to Mr. Guy W. Spring, and to Mr. R. S. Saylor.

It was also decided that for the ribbon cutting ceremony Dr. Glock and Dr. Stimson would hold the ribbon and Dr. Everly would cut it.

There being no further business, the Committee adjourned to meet at 12 noon, Saturday, July 14.

EXECUTIVE COMMITTEE

July 14, 1962

Meeting called to order at 12 noon, July 14, 1962, with the following members present: Don E. Wood, M.D., chairman; Wendell E. Covalt, M.D.; Harry R. Stimson, M.D.; John M. Paris, M.D.; Irvin W. Wilkens, M.D.

Robert Hollowell, attorney, and James A. Waggener, executive secretary.

Guest: Mrs. Thomas Johnson, president, Woman's Auxiliary to the Indiana State Medical Association.

Membership Report

Number of members as of December 31, 1961		4,338
1962 members as of June 30, 1962:		
Full dues paying	3,687	
Residents and interns	160	
Council remitted	38	
Senior	366	
Honorary	3	
Military	45	
Total 1962 members as of June 30, 1962		4,299
Number of members as of June 30, 1961		4,285
Gain over last year		14

Number of AMA members as of June 30, 1962		4,175
Total 1961 AMA members as of June 30, 1961		4,170
Gain over last year		5
1962 AMA members: Dues paying	3,559	
Exempt, but active	616	
		4,175
Number who have paid state dues but not AMA dues for 1962		124

Building Matters

In the absence of the chairman of the Building Committee the secretary informed the Committee of the proposed dedication program and also reported on the communication from W. A. Brennan, Inc., concerning the possibility of acquiring an exit from the rear of the property to Fortieth Street. Mr. Brennan stated it would be necessary to procure an easement from the property owner on the east and as soon as he could obtain a definite proposal he would contact the Association further regarding this plan.

Annual Convention, French Lick, October 7-10, 1962:

Scientific and entertainment program. The Committee reviewed the scientific and entertainment program and made two corrections. The Council breakfast on Monday, October 8, is to start at 7:30 a.m., and the reference committee meetings are to be scheduled for 9:00 a.m. With these corrections the program was approved on motion of Drs. Paris and Wilkens.

Entertainment. The secretary reported that he had been contacted by the secretary of the Allen County Medical Society concerning the plans of the Woman's Auxiliary of that society to supply the entertainment program for Monday night, October 8, the inquiry dealing with the question as to whether or not the Association had any funds to defray any of the traveling expenses of this group to French Lick. By consent the secretary was instructed to inform the Allen County Society secretary that no funds are available for this purpose.

Treasurer's Office

The treasurer presented statements on Income and Expenses for June, 1962, and reviewed the financial condition of the Association, the value of

the investment account, and the quarterly audit by Wolf and Company.

Upon motion of Drs. Paris and Stimson the treasurer was authorized to sell the investments maturing in 1962 and 1963 at his discretion.

Legislative Matters

The chairman of the Commission on Legislation reported on the activities with respect to Congress, the King-Anderson Bill and the scheduled vote on this issue in the Senate, probably on July 17. He urged everybody to encourage their friends to contact the Indiana senators and discuss this proposed vote with them.

Organization Matters

A letter from the Indiana Hospital Association concerning its desire to have a law passed making staff records confidential and privileged communications was read for the information of the Committee. This will be referred to the Commission on Legislation.

Letter from the Indiana University Alumni Association expressing its appreciation to the Association for use of the Indiana headquarters room at the AMA meeting as a place for I. U. alumni to gather was read for the information of the Committee.

A letter addressed to Dr. John Paris, chairman of the Council, by Mr. Guy W. Spring, executive director of Blue Cross, informing him of the extension of benefits in the Blue Cross policy, effective June 15, 1962, was read for the information of the Committee.

A memorandum from Dr. Norman Booher making inquiry as to whether or not space was available in the state office building for the display of 28 framed citations to physicians was read. The secretary was instructed to inform Dr. Booher that space was not available at the present time.

A letter from Indiana University giving a detailed resumé of the drop-outs in the 1961-62 freshman class was read for the information of the Committee.

Letters and telegrams from W. A. Brennan, Jr., the Illinois State Medical Association, the Kentucky State Medical Society and the Missouri State Medical Society, congratulating the Association on its new building, were read for the information of the Committee.

The secretary informed the Committee of the recent meeting which apparently was called by the Indiana Nursing Home Association and was attended by Dr. Offutt and the members of the Hospital Licensing Council at which the desire to eventually develop legislation which would place the licensing of nursing homes under the Hospital Licensing Council was discussed. Dr. Offutt is to be asked to attend the next Executive Committee meeting to discuss this item.

A letter from the Marion County Medical Assistants organization, seeking financial support from the State Medical Association to assist members of the Assistants Association in acting as a host to the state group in April 1963 was read and the group was to be informed that this matter will be discussed by the Budget Committee at its meeting in November.

The secretary called attention to the fact that he had not been instructed as to who was to sign the loan agreement which was approved by the Committee at its meeting on June 25. By consent the president was authorized to sign on behalf of the Association.

Future Meetings

A letter from the American Medical Association regarding the forthcoming meeting on Disaster Medical Care, scheduled at Dearborn, Michigan, on August 18, 1962, was read. By consent it was agreed that no representative will be sent to this meeting.

Correspondence from the American Medical Association concerning the National Congress on Mental Illness and Health, to be held in Chicago, October 4-6, 1962, was read and by consent it was agreed that a representative of the Association should attend this meeting.

Invitation from the Academy of Psychosomatic Medicine to send a representative to its meeting in Minneapolis November 1 to 3, 1962 was turned down by consent.

New Business

Mrs. Thomas Johnson, president of the Woman's Auxiliary to the Indiana State Medical Association, appeared before the Committee for a discussion of the program currently being carried out by the Auxiliary and expressing her willingness to work in any way that she could, upon direction of the Executive Committee.

There being no further business the Committee adjourned to meet again upon the call of the chairman.

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The Journal
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September 1962

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EDITORIAL AND ADVERTISING INFORMATION

All articles must be typewritten, double-spaced with margins of one inch.

Photographs should be printed on glossy paper. Negatives cannot be used.

Illustrations are desirable. Selection of illustrations submitted at discretion of editor and editorial board members. Cost of color illustrations must be shared by the author.

Contributors are responsible for all statements made in their articles. The editors and editorial board members may not be in agreement with all views expressed by authors, but it is desired to give all authors as great latitude as possible. However, the right is reserved to reduce in length or reject any article.

Articles are accepted for publication with the understanding that they are submitted for exclusive publication in THE JOURNAL of the Indiana State Medical Association.

Communications dealing with editorial matter should be sent to Frank B. Ramsey, M.D., Editor, 1802 North Illinois Street, Indianapolis 2, Indiana. All other communications should be sent to THE JOURNAL of the Indiana State Medical Association, 3935 N. Meridian, Indianapolis 8.

Advertising rates will be furnished on request. Copy must be received by the 5th of the month preceding month of issue. (Scientific manuscripts must be received at least two weeks earlier if geared for a specific issue.)

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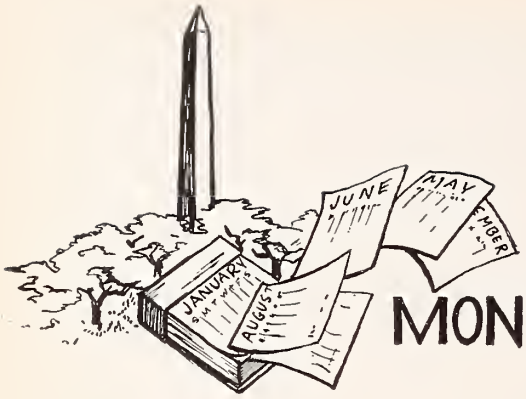
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This summary of what is happening in Washington is prepared by A.M.A.'s Capitol office and air-mailed to *The Journal* on the ninth of each month preceding month of issue.

MONTH IN WASHINGTON

WASHINGTON, D. C.--Reports of possible serious side effects of three drugs led to studies and investigations by the drug industry, the American Medical Association and the Federal government.

Most attention was given to thalidomide, a non-barbiturate which produces sleep without a "hangover." Births of malformed babies, mostly in foreign countries, by mothers who took the drug during pregnancy were widely reported.

The Pharmaceutical Manufacturers Association established a special drug safety group to broaden scientific knowledge regarding predictability of the effect of potent drugs on humans.

The AMA started a special study of thalidomide. A Senate subcommittee opened an investigation. One of the first official acts of the new Secretary of Health, Education and Welfare, Anthony J. Celebrezze, was to order a tightening of FDA controls over drug testing.

Thalidomide was first marketed in West Germany about five years ago. It was consumed widely in West Germany, Great Britain, Australia, Portugal and Canada. One of its uses was as an antidote for the morning sickness of early pregnancy. No significant side effects, either proved or suspected, were reported until 1961.

The parent company of Wm. S. Merrell Co. of Cincinnati, Ohio, obtained in 1959 the North American marketing rights for the drug. Merrell conducted laboratory and mass clinical tests, put the drug on the market in Canada and in September, 1961, applied for FDA approval for U.S. sales.

APPROVAL WITHHELD ON THALIDOMIDE

Dr. Frances O. Kelsey, a newly employed medical officer at FDA, moved cautiously on the application and withheld approval. In February, 1961, she read a letter in the British Medical Journal suggesting that thalidomide might be causing peripheral neuritis.

For withholding FDA approval of the drug, Dr. Kelsey was awarded the Distinguished Federal Civilian Service Medal by President Kennedy. The President at the same time renewed his request to Congress that it approve the Administration's drug legislation.

First reports linking thalidomide with birth malformations reached Merrell from the German drug manufacturer in November, 1961, after a

Continued

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1. Ford, R. A., and Blanchard, K: Journal-Lancet 78:185, 1958.

Formula: In each persian-rose enteric-coated tablet: potassium salicylate 0.3 Gm., potassium para-aminobenzoate 0.3 Gm., ascorbic acid 50.0 mg.

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Continued

German scientist reported such indications at a medical meeting. Merrell promptly sent a warning to Canadian doctors and the approximately 1200 American doctors conducting clinical tests with it. It was requested that the drug not be given to women of child-bearing age. Merrell so advised the FDA at the time also. In early March, 1962, Merrell withdrew the drug from the Canadian market and experimental use in this country, and dropped its FDA application.

The PMA announced establishment and financing of a Commission on Drug Safety to, among other activities, "investigate an unpredictable problem which is assumed to be connected with use of the European drug (thalidomide)." Lowell T. Coggeshall, M.D., a leading U.S. scientist and vice president of the University of Chicago, was named chairman of the commission. He formerly was president of the American Association of Medical Colleges and of the American Cancer Society.

"The basic purpose of our commission is to study the broad and complex problems of making available to the public, with adequate safeguards for both the doctor and the patient, the therapeutic advances which will result from the enormous programs and rapid pace of medical research," Coggeshall said.

"However promising new agents may be in the laboratory, no amount of laboratory experimentation and testing can provide complete assurance of effectiveness or safety when a new drug is administered to a human being. We must attempt to reduce danger to the lowest possible degree without discouraging the imaginative research from which flows mankind's increasing release from disease."

The AMA Council on Drugs began a comprehensive analysis of the effect of thalidomide on unborn infants.

In a statement, the council said:

"The AMA has been concerned about the reports of distinctive congenital malformations occurring in the offspring of patients receiving thalidomide in early pregnancy. . . .

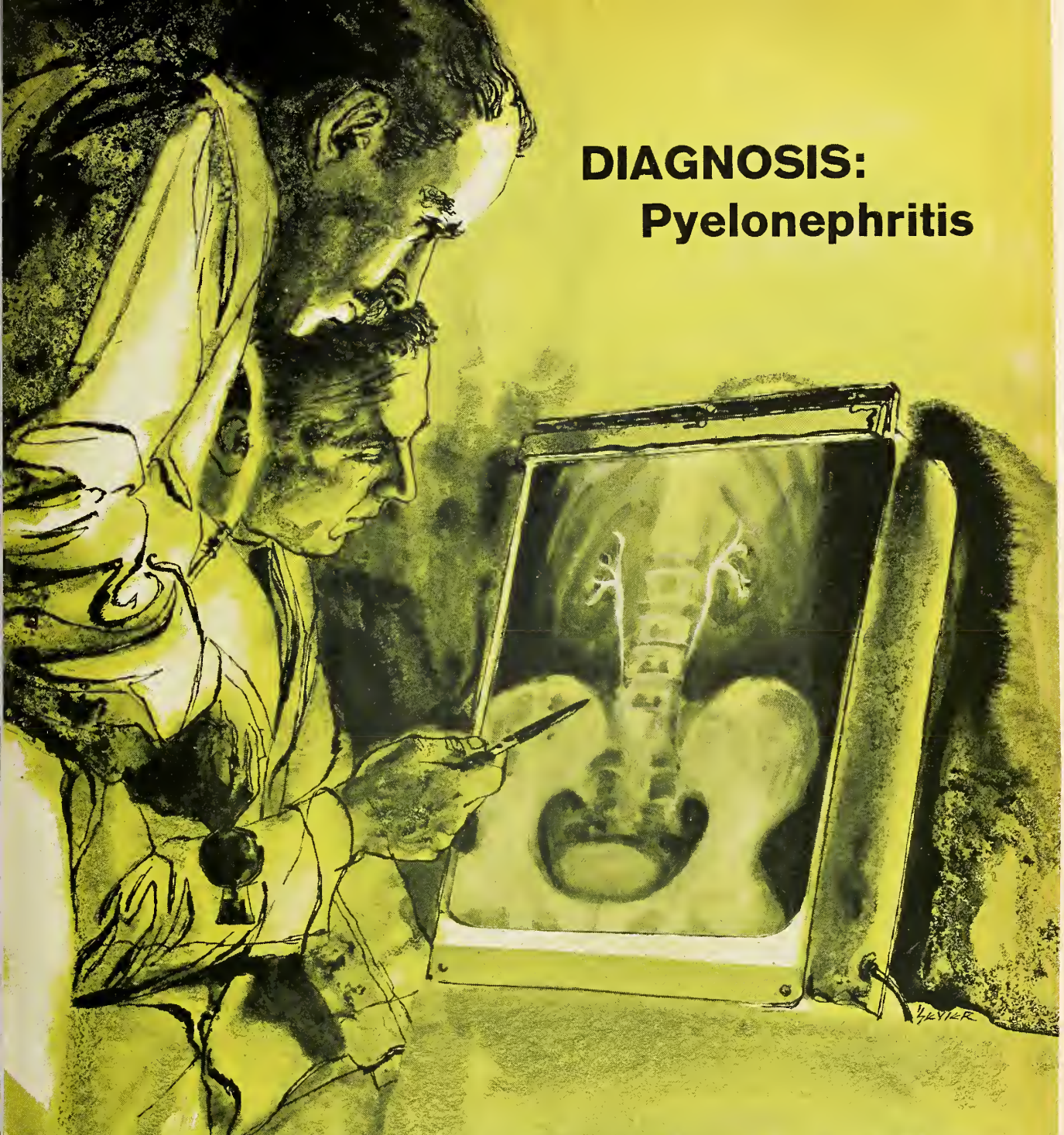
"It has been under clinical evaluation here since 1956. There have been no published reports in scientific journals of such malformations developing in connection with these trials in the United States.

"On the evidence which has been presented, it would appear that the increased incidence of extromelia in Germany, Great Britain and Australia may be related to the use of thalidomide during the early weeks of pregnancy.

MORE INTENSIVE RESEARCH NEEDED

"A careful analysis of the whole problem is needed. This has not yet been done and the Council on Drugs proposes to undertake a comprehensive analysis. Through such studies, it is hoped that further knowledge will be gained on the problem of congenital malformations and appropriate measures will be determined to safeguard our population."

Continued



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Continued

FDA Commissioner George P. Larrick and Dr. Kelsey both agreed in testifying before the Senate Subcommittee that Merrell had acted with reasonable diligence in withdrawing thalidomide from the market. Dr. Kelsey said that if the entire matter had been up to her alone she would not have withdrawn it much sooner than the company.

Larrick also said then that the FDA had not found any infants born deformed in this country as a result of thalidomide administered in the mass clinical testing program. But he said the birth of deformed infants in this country had been reported where mothers had taken the drug after it had been procured in other nations where it had been marketed.

A Federal grand jury was investigating Merrell in connection with another of its drugs, MER-29, which was designed to inhibit formation of cholesterol in the blood.

The FDA in April, 1960, approved an application for marketing the drug. It was an instant success. But it was withdrawn in April of this year after reports that some patients taking it had developed eye cataracts, and had suffered hair loss, skin changes and leukemia.

The AMA Council on Drugs recently reported that "much longer and more careful studies" were needed to prove the safety of the drug in general or long-term use.

ENOVID ALSO UNDER STUDY

The FDA also investigated Enovid, a birth control pill. The FDA said there had been 28 cases reported since September in which women given the contraceptive pill developed a blood clot called thrombophlebitis. Six of them died. But the agency cautioned that fatal blood clots can be caused by many things unrelated to any drug.

The pill's manufacturer, G. D. Searle and Co. of Chicago, said a "supercharged atmosphere over thalidomide" was responsible for the FDA's investigation of Enovid.

The company said a woman taking oral contraceptives runs no more risk of blood clots than a woman in normal pregnancy.

It was the second investigation ordered into the contraceptive pill since it was approved for commercial sale in May, 1960, on the basis of what the FDA called "extensive research data." ◄



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ulcer under repair

"What results can I expect in my ulcer patients?" Shown below is a tabulation of 795 ulcer patients, reported by 69 investigating physicians, in which glycopyrrolate was the anticholinergic employed. They represent a cross section of ulcer patients of all ages, both ambulatory and hospitalized, under various regimens, from all sections of the country.

Note the pattern of results. Robinul showed an "excellent" or "good" response in over 83% of patients, and Robinul-PH provided similar results in 81%.

As for side effects, these often troublesome extensions of anticholinergic action such as dry mouth, blurred vision, etc., were evaluated as "moderate-to-severe" in only 6.7% of a total of 1705 patients in preliminary investigative studies, 795 of whom are the ulcer cases tabulated here.

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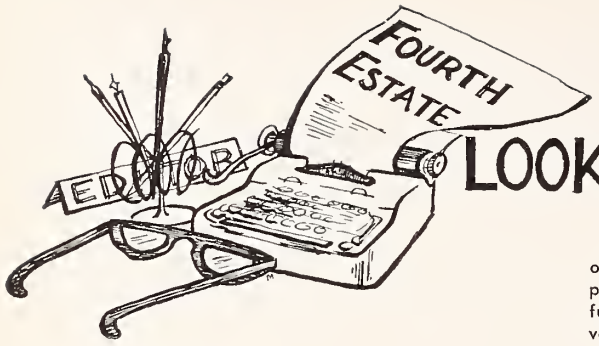
Brand of glycopyrrolate, Robins

results with Robinul and Robinul-PH in 795 ulcer patients, from 69 clinical investigators*

DIAGNOSIS	ROBINUL					ROBINUL-PH				
	*No. Patients	Excellent	Good	Fair	Poor	*No. Patients	Excellent	Good	Fair	Poor
Marginal Ulcer	11	3	3	3	2	1	0	1	0	0
Pyloric Channel Ulcer	6	3	1	0	2	2	1	1	0	0
Pyloric Ulcer	4	2	1	1	0	1	1	0	0	0
Gastric Ulcer, bleeding	3	1	2	0	0					
Gastric Ulcer	48	31	11	1	5	12	5	7	0	0
Gastric Ulcer, penetrated	1	0	1	0	0	1	1	0	0	0
Gastric Ulcers, multiple	1	1	0	0	0					
Duodenal Ulcer	494	220	195	48	31	99	41	38	13	7
Duodenal Ulcer, bleeding	38	19	15	3	1	2	1	0	1	0
Duodenal Ulcer, obstruction	13	4	3	1	5					
Duodenal Ulcer, perforated	5	2	1	0	2	6	0	3	1	2
Gastric and Duodenal Ulcer	4	2	2	0	0					
Peptic Ulcer, unspecified	25	19	4	0	2	18	8	7	2	1
TOTALS	653	307	239	57	50	142	58	57	17	10
		83.6%					81.0%			

*Clinical reports on file, A. H. Robins Company, Inc.

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LOOKS AT MEDICINE

This section of THE JOURNAL is devoted to the presentation of opinions which appeor on the editoriol pages of the public press, ond which ore of interest to the medical profession. Its function is to review comments which may be fovorable or unfovoroble to medicine. Members ore invited to submit editoriol clippings for this column.

The Unfair Withholding Plan

A man we were talking with the other day said he had never written a letter to a congressman, but had now decided to write to his U. S. senator. What has aroused him is the Kennedy administration's proposal to withhold income tax on dividends and interest.

He believes the proposal is unfair to honest taxpayers. It would deprive them of the use of their dividend money, and if more is withheld from them than they are obligated to pay they would have to go through one more filing requirement, namely to apply for a refund.

Most investors who haven't yet retired consistently reinvest their interest on savings accounts. The bank credits their accounts and they don't withdraw it, or even handle it. Most stockholders reinvest their dividend checks.

And most of these are honest people, who pay the taxes due on their interest and dividends. They pay taxes out of their wages, salaries and other earned income. Under withholding, the taxes would come out of what they would otherwise reinvest, and inevitably many of them will spend the earned income which they formerly saved for taxes on the investment income.

Banks and savings and loan associations usually compound interest on deposits quarterly or semi-annually. Depositors pay taxes on this interest once a year. Under withholding, many savers would lose the temporary use of that part of their interest income which was withheld. This represents a real loss to millions of honest taxpayers.

There are some dishonest people who do not report dividend and interest income, of course. Catching them is a problem for the Internal Revenue Service, and it's a big one. But no problem is big enough to justify taking punitive action against all to prevent wrong-doing by a minority. Murder, for instance, might be wiped out overnight by putting all citizens in solitary confinement, but the injustice is obvious.

But withholding wouldn't even result in the apprehension of more tax evaders. It would only result in collecting 20% of their dividends and interest—which may be far less than they owe.

So the withholding plan wouldn't even catch the crooks or make them pay up. Some other means to catch the evaders needs to be devised.—*Kokomo Tribune*, June 3, 1962.

Free Enterprise Surprise

The Indianapolis division of a major corporation helped develop a new surgical tool that has already relieved sufferers from Parkinson's disease. In cautiously optimistic tones, various medical authorities say that extremely low temperatures may also offer hope in the treatment of cancer and tumor. Please note that this is little more than a hope.

Yet, the freezing scalpel developed by the Linde Company Division of Union Carbide Corporation has already been used in successful treatments of Parkinson's disease. Brain cells which cause this form of palsy have been killed, and 90% of the patients so treated have been cured. Dr. Irving S. Cooper, of New York's St. Barnabas Hos-

pital, discovered this surgical employment of extremely low temperatures.

Linde's cyrogenic laboratory in Speedway was able to engineer and develop an instrument precise enough to permit delicate brain surgery. Local engineers and supervisors built a scalpel which gives both extremely low temperatures and very accurate regulation of those temperatures. The surgical and medical results have been remarkable.

Most citizens do not equate a corporate business with what may be an important step forward in medical science. The primary function of a corporation is all too often considered to be that of making money. While Union Carbide undoubtedly intends to continue profitable operations, it is not likely that the Linde scalpel will sell like hot cakes. Developing this new surgical tool must be considered, in its initial experimental stage, as a contribution to relieve human suffering.

The free enterprise system has a way of turning out these happy surprises from time to time. It does so because it permits the greatest exercise of human imagination and free will.

Indianapolis should be pleased that a company located here has taken part in this unusual achievement.—*Indianapolis Star*, July 2, 1962.

Promote Indiana's Image

Indiana, in its own individually stubborn fashion, is taking care of those older citizens who need medical care, but who find the financial burden too heavy. True, the Hoosier program wasn't built in Washington. Yet, the fact remains that Indiana has a system of medical care for the aged that is in existence and that is functioning now, not in the future.

Once again, Indiana must be an embarrassing thorn in the flesh of the New Frontier. While the Frontiersmen shout about what should be done, Indiana has gone ahead and done it.

The General Assembly of 1961 set up a program which extended medical care benefits which have been available in this state for many years. It is not an inexpensive plan. It does require tax money from Federal, state and local sources. Yet, it meets the needs of those who should receive aid without levying a new Federal gross tax on pay checks, or offering benefits to those who are capable of meeting their own medical expenses.

More than that, the Indiana plan covers all medical expenses. Unlike the New Frontier proposal, it is not limited to hospital and nursing home care, or to certain drugs. The elderly Hoosier citizens who need it can get unlimited hospital, doctor or nursing care. There are no deductible clauses in the Indiana program.

State Welfare Director Albert Kelly has pointed out that not a single aged person in Indiana has to be without medical care if they aren't financially able to pay for it. They can qualify under existing laws and receive full benefits. If other state welfare directors have made a similar statement, it hasn't been noised abroad to any extent.

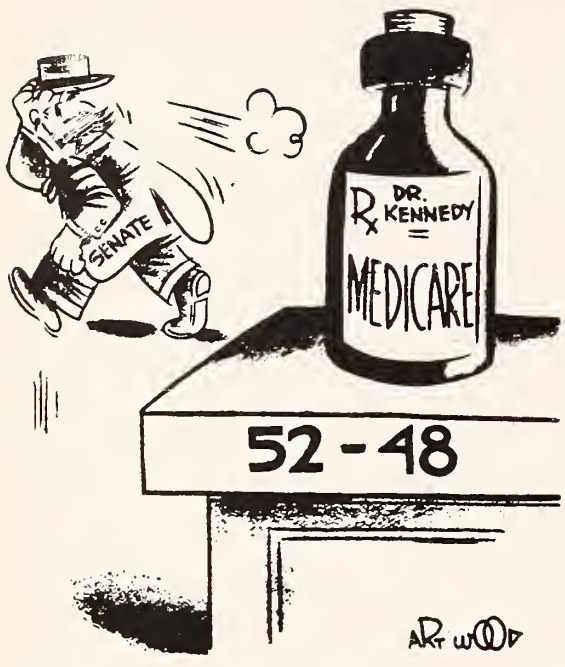
It is true that Indiana has set up certain standards for this aid. The "means test" must be met. In plain words, the older person who wants to get public help for medical care must show that he isn't able to pay the bills. There is a residence requirement. Finally, there is the Indiana law which places a lien against any property, a part of our welfare system for some time.

Perhaps this kind of system does not meet with the unqualified and enthusiastic support of the New Frontier. This is unfortunate. There are many things about the New Frontier that aren't pleasing to Hoosiers, either. Yet, the real nub of the matter is the fact that Indiana set up a workable and working program for complete medical care of its elderly citizens while the Frontiersmen were still worrying over details.

Indiana's plan should be given a full and fair test. There is no reason why it should be dropped for some untried program, nor should it be overlaid with a system imported from Washington.

Unsettling though it could be, the New Frontier might try to get other states to follow the "image" of Indiana in the field

Leaving It on the Table



Reprinted with permission from *The Indianapolis Times*, July 18, 1962.

of real medical care for older citizens.—*Indianapolis Star*, June 30, 1962.

More Misinformation

The Kennedy hospital care program continues to suffer from misrepresentation. The latest group to contribute is the Northwest Indiana Chapter of the National Association of Social Workers. This group recently adopted a statement supporting the King-Anderson bill, which is the President's program.

The chairman of this Hoosier group, Walter E. Rodgers, said that the Kennedy plan calls for prepaid hospital insurance financed under Social Security. This is not true. Substitutes have been offered in Congress which might provide such prepaid insurance, but the President has rejected all "compromises" which might change his original proposal, for good or ill.

Under the King-Anderson bill, supported uncritically by the President, any hospital or nursing home care would be handled just as Social Security. Social Security is not insurance. Any social worker who has not yet grasped this fact isn't worthy of the title. Social Security is based on a gross tax on income, and the Kennedy plan calls for an increase both in the amount of the gross Federal tax and the base pay on which the entire levy would be collected.

There is no insurance in Social Security today. There will be no hospital care or nursing home insurance, prepaid or otherwise, under the Kennedy plan.

The Indiana committee further went on record to "strongly recommend medical care legislation which is reasonable, equitable and that preserves the dignity and worth of the human person." By any standard, the Kennedy program is not "medical care legislation." This fact has been reluctantly admitted by some of the President's more ardent supporters.

At best, the King-Anderson plan is a hospital and nursing home plan with a deductible clause. If the social workers can't read what the law says, they should refrain from making public statements about what it does not say.

The social workers in northwestern Indiana are entitled to express an opinion. Some of them, however, are public officials, employed by the state and local welfare departments. These employees of the citizenry have a responsibility to confine their advocacy to fact.

The fact is that President Kennedy is proposing an increase in the gross Federal payroll tax with a political promise to pay some of it back in hospital care for a selected group of elderly citizens. Is this what the social workers really want?—*Indianapolis Star*, May 7, 1962. ◄

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The Journal of the INDIANA STATE MEDICAL ASSOCIATION

Supervised by THE COUNCIL

Volume 55 — September 1962 — Number 9

The Case of the Arthritic Arpeggio

ARNOLD LIEBERMAN, M.D.
New York, N. Y.

AN ARPEGGIO is constituted by notes struck in succession. When built harmonically, there is melody; when struck at random, there is usually only dissonance. Yet, by that periodic concatenation of rare chance, an idle riffle of haphazard sounds will produce the "lost chord"—a sudden blending of disparate parts into a wondrous whole. Now Mary Magnoni (no relation to the famous actress) has been the beneficiary of just such a minor miracle. Her tale is worth narrating even if all the answers are not forthcoming and if much of what has happened is more than a little confusing.

Over the years, many able physicians made numerous tentative diagnoses on Mary Magnoni. Quite dissonantly, they categorized her as this arthritic disease or that endocrine disorder. As the latest of the doctors charged with her treatment, I made a decision to subject her to a course of medications that seemed logical to me at the time. Most of my reasoning was demonstrated later to be fallacious. Nevertheless, the prescribed drugs did accomplish the impossible: Mary's joints were mobilized and she was able to desert the wheel chair and eventually go back to work! This despite the objective fact of the x-rays displaying hardly any alteration in the massive calcium deposits encasing almost all her joints! Then, why this therapeutic serendipity? How to explain the vim, vigor, vitality and vivacity that now emanates from this formerly helpless cripple?

Mary Magnoni's astounding recovery has continued to baffle the physicians at the arthritic clinic every time we have looked at her. Then, just the other day, I ran across an item imbedded in some literature* that I had been scanning. I paused and re-read the little summary; most forcefully the image of my enigmatic patient, Mary Magnoni, arose before me: was I being presented with a possible answer? I took the time to read up on the subject; I suspect that I have stumbled on at least a part of the solution; some of the interest in this article may lie in your reaction to the available facts being presented.

"Old Lung Trouble"

At the very beginning of Mary Magnoni's medical history there is an uncertainty that tantalizes without titillating us. Of course, the tubercular background is well documented; her father and both sisters suc-

EDITOR'S NOTE:

The author has departed from the usual format of the Lieberman series since, in this case, the diagnosis is obviously unproven. Dr. Lieberman would welcome letters of discussion addressed to him at 1270 Fifth Avenue, New York City 29.

The use of colored photographs in this article was made possible through the generosity of Geigy Pharmaceuticals.

* "*Science*," Dec. 8, 1961. pp. 1877.

cumbed to the white plague. The damp cold of the Glasgow tenement in which she was reared left her with a puny frame and bilaterally scarred pulmonary apices. She was rather reticent about her personal tale. Still, we are told that she married rather late in life; the gentleman was an Italian sailor hailing from Brooklyn. That is how a Scots lassie acquired the name she did; that is also how she and her mother had come to live in New York. Apparently, Mary is a widow—at least, there is no present evidence of a man in her household. She did make clear that she had never been pregnant and that she had maintained good health until her menopause.

At about that time, she developed "glands" in her neck; she had been hospitalized for months. After an excision of the "glands," she had improved gradually. It is here that the ambiguity arises. The surgery had been performed before World War II so that the records are no longer available. Mary *was* told that her condition was the direct consequence of her old "lung trouble." She had been taking huge quantities of cod-liver oil all her life; she had been given dihydrotachysterol for the symptoms she had developed after the neck operation. In one of those quirks of history taking familiar to all of us, Mary had actually preserved the slip of paper on which the intern had written down the, at that time, new drug that was being given to her!

Gratefully accepting the vital clue that this drug is used against Hypoparathyroidism*, we come up with a *probable* diagnosis, in Mary's case, of scrofula, the King's Evil, better known as tuberculous cervical adenitis. This entity will, at times, destroy the parathyroid glands thus creating the syndrome of hypoparathyroidism. Mary does talk of her "muscle cramps" and "fits" that she had after her operation and before she took the medicine just mentioned. The diagnosis is still an assumption that creates just the ambiguity we have discussed: we build a structure without being completely sure of the foundation.

Multiple Diagnoses Made

Be all this as it may, Mary Magnoni did recover from her glandular troubles and was able to go back to her heavy manual tasks at the hotel where she was employed as a maid. She also took upon herself the entire care of her aged mother in a little

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* The parathyroid glands are usually two in number on each side of the neck. They are imbedded in the posterior capsule of the thyroid gland, are reddish-brown in color and resemble slightly flattened garden peas. Collectively the four glands together hardly weigh 125 milligrams. The pure hormone has been isolated and identified chemically (see *Scientific American* April, 1961, p. 56; Howard Rasmussen discusses the chemistry of the parathyroid hormone and its relation to calcium and phosphorus equilibrium and the inter-relationship in regard to vitamin D. A more technical presentation is given by the same author in 3rd edition of Williams' "Endocrinology," pp. 731-879.)

Without going into excessive minutiae, we can remind the reader that the parathyroid hormone controls the rapid fluctuations of calcium and phosphorus exchange just as vitamin D exerts its slower but just as vital regulation of the bone formation, i.e., the laying down of the hydroxyapatite on the collagen fiber framework. This exchangeable bone may be regarded as being in simple equilibrium with the calcium and phosphorus ions in the circulation. Vitamin D reduces the fecal excretion of calcium and urinary excretion of phosphate. In the absence of vitamin D the total amount of calcium and phosphorus within the internal environment declines below the critical level. Bone collagen ceases to become calcified so that, eventually, the bones stop growing and we have the disease of bending and breaking bone known as rickets.

When too much parathyroid hormone is formed we have *hyper*parathyroidism. There occurs a decrease in serum phosphorus and a rise in serum calcium. Then, clinically, there may be such bone disease as osteitis cystica fibrosa, renal stone formation, generalized muscle hypotonicity and "double jointedness" in addition to certain eye changes such as "band keratopathy." Also, the few cases in my experience, have displayed a very marked mental dullness and retardation developing *after* the onset of the disease.

Conversely, *hypo*parathyroidism leads to a fall in serum and urine calcium levels; the serum phosphorus level rises while its urinary excretion diminishes. These events lead to increased bone density and cataract formation. The patient's mental state may become stimulated to the hysterical level; there is muscle *tetany* with positive Chvostek, Erb and Trousseau signs. The intracranial pressure goes up and a mistaken diagnosis of brain tumor may be made.



FIGURE 1
X-RAY of right and left hand taken 8/28/57. Note multiple soft tissue calcifications.

flat not far from the Brooklyn Navy Yard; for doing this, she was granted some supplemental relief by the Catholic charities; medical assistance was given by the city. Mary continued with a liberal intake of cod-liver oil; the DHT she kept up for several years. About 1950, she began to develop stiffness in her joints and a "tightness" and "shininess" of the skin over her face and extremities. In the intervening decade, the private physician who gave her treatment has died and his records have disappeared but we know enough from the summaries available from the clinics that she attended also that the diagnoses made and treatments given were many and almost weird. She was diagnosed all the arthridites (except the infectious) plus all the known and unknown collagen diseases; the hormonal entities were added for spice. Osteo-arthritis? Rheumatoid arthritis? Gout? SLE? Polyarteritis? Dermatomyositis? Scleredema? You name it and it is in the record.

Without expounding a lengthy differential exegesis, we can summarize by saying that she was dosed with aspirins, steroids, butazolidin, fever therapy, all varieties of physio-manipulations, short wave and transducer heats, also plain mud baths—just about everything scores of resourceful healers could conjure and then juggle in their spells. Regardless of all the baffled efforts made by the army of physicians, the mysterious malady pursued its inexorable course stiffening and distorting all her joints; by 1957 Mary was a wheel chair confined cripple. It was getting ever more difficult for her to get up for the most essential functions. Some neighbors helped Mary and her mother; however, both women were now entirely on relief. It was about this time that she was assigned to our clinic.

Calcification Puzzle

In due time, we had the opportunity of seeing the x-rays of her hands and wrists (Figure 1). It was around these joints par-

ticularly that one could observe the multiple soft tissue calcifications; the movable surfaces were encased in veritable strait jackets. She was placed on iron and huge doses of thyroid.

X-ray studies of the esophagus showed the characteristic delay in passage usually associated with scleroderma. The ordinary laboratory studies showed some secondary anemia, a sedimentation rate of 20, uric acid at 7.4, phosphorus at 3.2, calcium at 11 —the urine Sulkowich test was strongly positive (just for the extra confusing touch). Our group reviewed the entire case and failed to agree on anything definite. We bounced around the idea of osteo—and also rheumatoid arthritis; we rather agreed on the scleroderma; the chief pointed at the fact of the periarticular calcinosis. Gout had to be considered and the whole question of parathyroid disease was felt to be wide open. Because of the multifaceted aspects of the case, Mary Magnoni was tossed into my bailiwick for "further evaluation." Why did I *have* to have been present?

By this time it was spring of 1959; Mary had had *some* results from a prolonged course of gold and also ACTH and steroids in maximal dosages. The intolerable pain had eased a bit; some of the swellings had subsided. She was still a helpless, pitiful invalid—the Scottish burr emanated but feebly from her firmly locked jaws. It was in March of 1959 that I came into my first direct contact with Mary Magnoni. The massive file was all there for my attention; I thumbed my way through the reams of laboratory reports and the scores of x-ray pictures. I went over the patient meticulously.

Collagen Diseases Not Yet Well Defined

Whatever the exact label, the connective tissues were involved most basically. Let us avoid too much detail as it would be boring in addition to dating us too definitely. We all know that collagen is the principal structural element of the fibers that are imbedded in the matrix of the ground substance that is mostly polysaccharide in nature. Collagen is being studied very intensively and much has been learned as to its nature. Its unbranched, acidophilic fibrils are composed chiefly of proline, hydroxyproline and glycine. No less than 30% of *all* body protein goes into this very building frame of all of us. The ground substance is composed of (1) sulfate-free hyaluronic acid replicating chains of glucuronic acid and an amino sugar and (2) sulfated polysaccharides forming the cement substance within collagen and cartilage while functioning as complex cation binders in a manner comparable to that of synthetic ion exchange resins.

The biochemists have learned the trick of what makes up the triple chain of the alpha helices coiled around each other; they are using isotope labeling and interconversion technics, the electron microscope and delicate immunospectro-photometric analyses. The day is coming right soon when we will know the precise macromolecular structure and the alterations produced by disease. We are confident that the fibroblasts elaborate all this building material from the blood and important regulators such as enzymes, vitamins and hormones.

Our knowledge is still basically deficient as to the *etiology* of the reactions resulting from injury to the connective tissues. Of course, inflammation increases capillary permeability and that produces fibrinoid necrosis, fibrillary augmentation leading to sclerosis, cellular invasion and proliferation. But the *why* of the initiating mechanism escapes us as yet. We talk learnedly of auto-immune responses, antibody-antigen complexes, "self" rejecting "non-self," gene penetrance and its bearing on the cancer problem—all exciting items and all trembling on the very brink of sudden blindingly clarifying unification. Until, however, the great breakthrough, we still have to realize that the collagen diseases are classified together only because it is the connective tissues which are the structures basically involved. Regardless of the etiological agent, they are ultimately called this or that only because we have learned to distinguish the few basic clinical patterns which, in turn, are oriented on the constitutional as well as the local lesions in the joints, blood vessels, heart, skin, muscle and the supporting reticulum of the internal organs.

Scleroderma Most Credible Diagnosis

Now Mary Magnoni was a problem precisely because she did *not* fit readily into one exact, recognizable entity. After my exhaustive examination, I was quite sure she was NOT a lot of things. She was obviously NOT a disseminated lupus erythematosus. The joint involvement was different, the mucocutaneous manifestations were absent, neither the heart or the kidneys were stricken and the alimentary tract and the laboratory examinations were completely against *this* diagnosis. Dermatomyositis or polymyositis it *could* be but there was no evidence of an accompanying neoplasm. We are aware of the interesting hypothesis that states that "dermatomyositis is due to antibodies against the neoplasm which cross-react with other tissue antigens. . . ."

Polyarteritis nodosa or necrotizing angiitis was really excluded by the decade-long absence of the stigmata of this disease. There did not seem to be any allergy or allergic spectrum of signs or symptoms. There was no sign of the multisystem involvement (Kussmaul-Maier type), the rheumatic arteritis, the granulomatous, asthmatic type with eosinophilia, the temporal arteritis or any other vascular variety of the condition.

The scleredema was much more credible; it might have gone on into the progressive systemic sclerosis better known as scleroderma. The disease seemed to be confined to the skin only but certainly there was the characteristic atrophy of the skin and its appendages. Mary Magnoni indubitably was a female and the disease had seemed to start rather insidiously with fever, malaise and wasting. She did have difficulty in opening her mouth and there was some suggestion of ischemia of the fingers and toes. The articular manifestations WERE suggestive of rheumatoid arthritis (which she had been diagnosed tentatively a few times) but the *esophageal* involvement was almost diagnostic in itself. The calcium deposits were absolutely fantastic in quantity and the anemia and elevated sedimentation rate were not typical but certainly the scleroderma appelation was about the best of all the labels to be hung on our patient.

Hardly a Typical Gout Patient

The persisting high level of uric acid (between 7.4 and 9 mgs. percent) *was* admittedly another bemusing factor. By twisting the roentgenologist's arm, I was also able to extract a mumble about, "suggestion of bony punched-out areas compatible with gout." Of course, we are all aware of the fact that gout, the primary variety especially, is a genetically determined disorder of purine metabolism in which the cardinal feature is hyperuricemia. In the mammal there is genetic deletion of uricase; the metabolic defect is partial reversion to the normal situation in birds and reptiles, namely, a significant uricotelic component in a predominantly ureotelic species. In plain English, the end product of nitrogenous metabolism, instead of the usual urea, tends to consist of significant quantities of uric acid. Whether there is *increased* formation of uric acid or *decreased* excretion is not of importance, clinically speaking. We do know that the excruciating pain of the gouty attack is probably due to the phagocytosis of accumulated sodium urate crystals in the synovium.

In thinking about Mary, it did seem a bit of a supererogation to be entering into scholarly discussions on whether the gout (if she had any gout) was due to an autosomal dominant gene with incomplete penetrance, i.e., monomerism or whether it was produced by cumulative gene action, i.e., polymerism. She certainly was not the usual stereotype of the fleshpot loving, hard drinking, plethoric male. Just as certainly I could see no harm of trying some anti-gout medication on a purely empiric basis. It was a certainty that I could do no worse than my predecessors.

The latex fixation test for rheumatoid arthritis was persistently negative and the frozen joints contained no fluid and just did not really look like the usual rheumatoid picture. Surely the osteoarthritis was a most minor feature of the tale. My tentative approach consisted in starting her on wine of colchicine and Anturane, the sul-



FIGURE 2
NOVEMBER, 1959, pictures taken when patient first walked inta the clinic withaut aid.

finpyrazone put out by Geigy. The 100 mg. tablets were prescribed q.i.d.; one teaspoonful of the wine of colchicine accompanied each tablet of the Anturane. Thus Mary Magnoni received one milligram of colchicine also q.i.d.

This latest round of medication was commenced in July of 1959. It was really a gesture of desperation on my part. I warned Mary of the possible gastrointestinal symptoms of overdosage. I told her to continue with the gold, Aralen, thyroid, iron and vitamins just as before. For about a month, there seemed to be no change—Mary came faithfully once a week for a blood count and a report. Frankly, I almost dreaded seeing her as the whole thing seemed so hopeless and inexplicable.

Sensational Response to Medication

On August 15th, Mary Magnoni told of having diarrhea and some nausea but volunteered the statement that she was continuing her medication because she was in less pain and because, also, she could now, "really open" her mouth! Also, her hands were "more limber" and she could again "pick up and hold" things! After some prayerful discussions with the chief of the clinic, I also started Mary on thrice weekly injections of the disodium salt of ethylenediamine tetra-acetic acid.* This well known chelating agent is widely used for the specific purpose of mobilizing and thus removing heavy metals. We had planned to

* We used the 5 cc. (one gram) ampoule of Riker's Versenate.



FIGURE 3

X-RAYS of right and left hand taken 3/16/60. Periarticular calcinotic deposits still apparent; compare with Figure 1.

keep it up for at least a course of 30 injections; for reasons beyond our control, she received only about half that number over an irregular span of more than four months. In spite of her gastric distress, Mary Magnoni stuck grimly to the colchicine and the Anturane. Her improvement was slow but cumulatively nothing less than sensational! By September she was able to get out of her wheel chair and get around on crutches. At Thanksgiving, she WALKED into the clinic without any aid!! It was at this time that I took the Kodachromes that are reproduced here. (Figure 2.) Also, I had the surgical resident take a biopsy of the largest node visible over the finger joints. I expected to get chemical confirmation of the presence of at least some uric acid.

Mystery Still Unsolved

To my utter astonishment, the report was "bone crystals . . . [$Ca(OH).\ Ca_4(PO_4)_3$] 2." In other words, hydroxyapatite—and nothing else! Incredulous of the result, I repeated the biopsy using another node. Personally, I took the material to the chief chemist; quietly, I told him of my dilemma. Histologic sections, spectro-photometric analysis and meticulous chemical analysis gave results absolutely confirmatory of the first report. So—where were we and why?

By January of 1960, the clinical miracle was verging on the incredible. Mary was not only up and about; she was also alert, active and back on the job working! On 3/16/60 we re-x-rayed her hands (Figure 3). They still showed the huge periarticular calcinotic deposits; the demonstrable change from the films of 1957 was not anything exciting. It was on that day that Mary discontinued both the Anturane and the colchicine; the g.i. upsets were getting too violent especially as she was now away

all day working. In June of that year, we repeated our laboratory tests on her. The latex test continued negative and the esophagogram was still considered diagnostic of scleroderma. The uric acid was undiminished at an 8.2 level and the sedimentation rate was no lower at a pathologic 28.

A most eminent arthritic consultant was imported to examine Mary and review the chart before giving us the benefit of his vast experience. After a thorough consideration of all the facets of the case, he diagnosed: 1) Gouty arthritis with periarticular calcinosis; 2) Scleroderma; 3) Hypoparathyroidism to be considered but not likely.

In all candor, the authority confessed to being baffled by the verve and vitality being now displayed by the patient. "Why did this relatively simple anti-gout medication release her from her encasing straitjacket and restore her to useful life? I wish I knew!"

Mary Magnoni is now almost 70 years old. She is again taking care of her mother who is still alive at 92. I see her but seldom as she flatly refuses further hospital or clinic studies: "I'm feeling just fine thanks to you doctors AND the Good Lord!"

Cod-Liver Oil Plus D.H.T. Equals Calciphylaxis?

Obviously, the answer was eluding us doctors. And then I ran across this item on *calciphylaxis,* the article in *Science* I mentioned at the very beginning of this already too lengthy dissertation. I looked at the vivid pictures of Hans Selye's rats emerging from their shell-like carapaces (Figure 4). He produced cutaneous calcinosis by the use of parathyroid hormone and vitamin D. He has been able to produce *selective* calcinosis by varying his technics. He first "sensitizes" the animal with parathyroid hormone and dihydrotachysterol (DHT) and then challenges with such substances as egg white. Calciphylaxis occurs with predictable regularity.

It is the DHT that caught my eye originally; I had used it when I was doing the work on my thesis a decade before the



FIGURE 4

RAT EMERGING from carapace in Selye calciphylaxis experiment.

World War; it had stuck in my mind as the unusual drug used by Mary Magnoni after her neck surgery. Was it possible that Mary Magnoni was an unwitting very first human example of calciphylaxis? Her hypoparathyroidism actually sensitising and then challenging her body by unwise use of the terrific overdosage with cod-liver oil and dihydrotachysterol? Was this why all our diagnoses seemed so fumblingly inadequate? When examining the prints of the rats emerging from their old skins as if they were snakes shedding their outworn garments—well, the parallel stared me in the face.*

However, is the "obvious" necessarily true? What about the persisting high urate levels? Did the calcium sodium versenate really help? And what is the mysterious near miraculous therapeutic serendipity wrought by the well known anti-gout remedies, i.e., the Anturane and the colchicine? Dare we shrug off the diagnosis of atypical gouty arthritis? And why the persistence of the cure? Why is the subjective relief so much greater than the objective demonstration? Could it be that we are indulging in the all too common *post hoc, ergo propter hoc,* it happened after this treatment, *therefore,* it was this treatment that produced the cure. Was a simple remission the entire answer?

* On July 1, 1962, Dr. Hans Selye published the definitive monograph on this fascinating topic, "Calciphylaxis," U. of Chicago Press. (See book review on page 1352.)

Mary Magnoni *strolled* into our clinic the first week of August, 1962. Her walk was almost a stride; the face looked normal; her fingers, while still horribly deformed, had an excellent grip! Mary's mother had died recently. Mary wanted to know whether there was any harm in her walking a daily *mile* for exercise. . . . Was all this still only continuing "remission?"

The reader will now (I hope) be in a position to sympathize with our predicament. I had to go into a lengthy differential diagnosis simply because I was less than sure of my ground. When one has the gall to offer a case as "the first of its kind," one must of necessity present the pros and cons as clearly as possible. Then one looks forward hopefully to letters of advice and elucidation. We may be torturing a very simple thing into a mystery.

Whatever the answer, the patient is again, clinically speaking, a useful, self-respecting member of society. The Princes of Serendip got there—never mind how. I'm grateful that Mary Magnoni and I had the luck to be hitching a ride! ◄

1270 Fifth Ave.,
New York 29, N. Y.

Correction

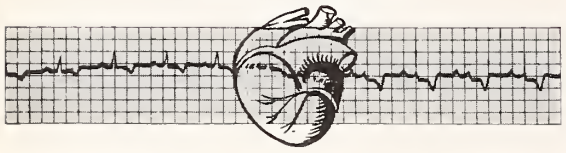
We regret that the titles of John E. Kooiker, M.D., and Bernard Lubin, Ph.D., were incorrect on page 1158 of the August Journal.

Dr. Kooiker is Associate Professor, Department of Psychiatry, Indiana University Medical School and Director of the Adult Psychiatric Clinic.

Dr. Lubin is Assistant Professor, Department of Psychiatry, Indiana University Medical School and Director of Psychological Services, Indiana State Department of Mental Health.

We regret any inconvenience caused by this error.

Electrocardiogram
of the month



Presented as a regular feature of The JOURNAL, Electrocardiogram of the Month is a series of short talks on cardiovascular diagnosis and treatment, edited by the staff of the Robert M. Moore Heart Clinic of the Marion County General Hospital, Indianapolis.

Electrical Alternans Due to Pericardial Effusion

CHARLES FISCH, M.D.*

ON AN EARLIER communication to this *Journal* (April, 1962) the causes of electrical alternans of the QRS were enumerated and it was indicated that electrical alternans of considerable degree is usually associated with massive pericardial effusion. Since that time we had the opportunity to study such a patient and by performing a pericardial aspiration proved the relationship of the alternans to the pericardial effusion.

The patient was a middle aged lady with metastatic carcinoma of the breast who was admitted to the Robert Long Hospital with evidence of massive right pleural effusion and classical findings of rather acute pericardial tamponade. The cardiograms (all Lead V-4) presented in the accompanying figure were all taken on the same day. The upper strip represents the tracing recorded on admission. The alternans of the QRS is quite obvious. Alternans of P and T waves, if present would be difficult to see because of the wandering baseline and because of extracardiac artifact at the beginning of the strip. The second strip was recorded following removal of 1500 cc. of fluid from the right chest. The electrical alternans of the QRS remained unchanged. It was only after the removal of 200 cc. of fluid from the pericardial sac did the alternans disappear (bottom strip).

* From the Robert M. Moore Heart Clinic, Marion County General Hospital and the Department of Medicine, Indiana University School of Medicine.

Supported by the Herman C. Krannert Fund of the Indiana Heart Association, Indiana State Board of Health, Indianapolis.

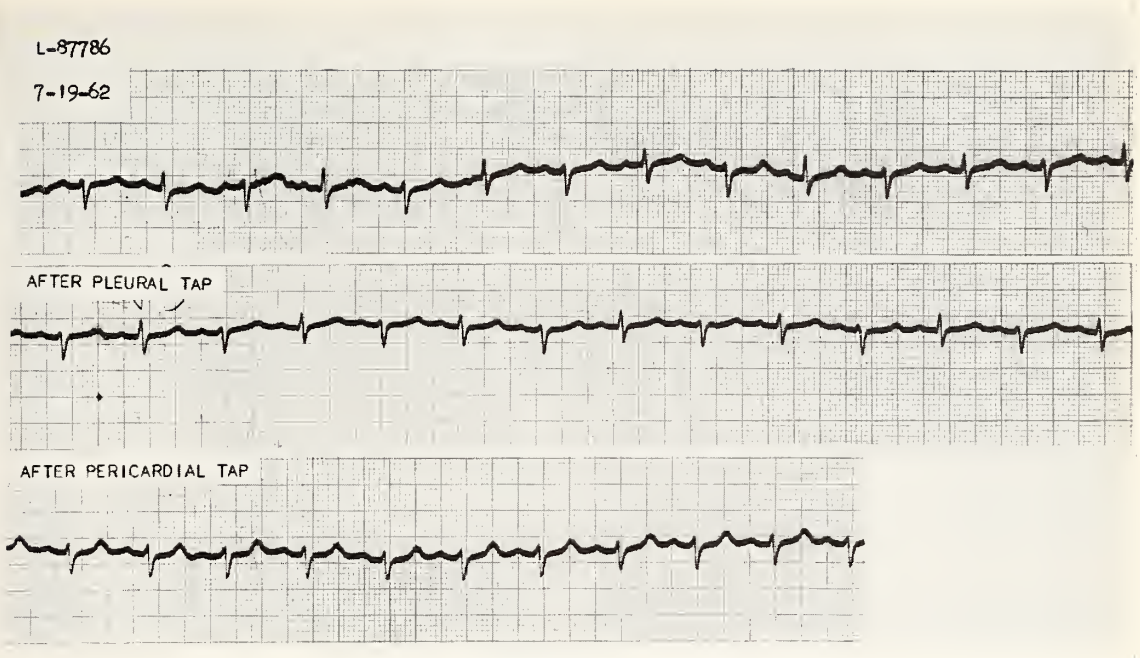


FIGURE 1

THIS FIGURE SHOWS electrical alternans of the QRS in the upper two strips and its disappearance after pericardial aspiration.

About Our Cover

Per ardua ad Astra—through difficulties to the stars—is becoming more and more of a literal possibility if the events of the last few years are a foresight of things to come.

Ninety years ago a book was published . . . Jules Verne's "Around the World in Eighty Days," the adventures of a man who accepts a wager that he can make this journey in the specified time, his fellow club members are sure he will not succeed . . . but on the eightieth day he walks into the club. Certainly times have changed when man can orbit the earth in thirty minutes!

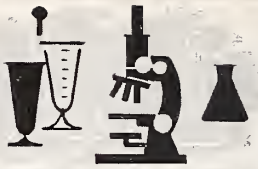
This month's cover, made available to *The Journal* by NASA, shows the launching of Friendship 7 carrying John H. Glenn, Jr., on his historical three orbital flight around the earth on February 20, 1962.

This flight, the two preceding suborbital flights made by Alan Shephard and Virgil Grissom, and the most recent three orbits completed by Scott Carpenter were flights made possible not only by the courage and skill of the astronauts who manned the spacecrafts but, in no less degree, by the skill and dedication of the hundreds of people, doctors, scientists and engineers, whose years of work and planning made this undertaking both possible and successful.

This is the Convention issue of *The Journal,* containing the schedule of events to be held at French Lick next month. One of the highlights of the meeting will be a program on Aerospace Medicine featuring speakers actively engaged in this phase of medicine and in the Space Program.

The National Aeronautics and Space Administration have arranged for their travelling road show to be set up at French Lick for the duration of the Convention. This exhibit will afford members an exciting opportunity to see for themselves the equipment and technics used to launch an astronaut into space with every possible safeguard for his health, both physical and mental.—M.E.R.

Path-finder
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Renal Function Tests in Clinical Practice

LEON L. BLUM, M.D.
Terre Haute, Indiana

MANY ACCURATE measurements of various kidney functions are available, such as inulin and diodrast clearance tests, excretion of p-aminohippurate, but they remain primarily investigative procedures. In clinical diagnosis of renal disease, a detailed history and a thorough examination of the urine remain of primary importance. Since urinalysis does not strictly constitute a renal function test, it will not be discussed in this outline.

Renal function tests do not distinguish between anatomic and functional impairment of the kidney. Furthermore, multifocal kidney disease, even in advanced stage, may exist without demonstrable loss of excretory function. In apparently "normal" individuals all renal functions decline with age. At the age of 90, there is an average reduction of nearly 50% in glomerular filtration rate and renal blood flow. Nevertheless, there remain renal function tests of clinical value, if properly selected and interpreted. These tests will be considered under the following groupings:

I. Concentration—dilution tests
II. Clearance tests
III. Phenosulfonphthalein excretion test (P.S.P. test)
IV. Radioisotope renogram.

I. Concentration—Dilution Tests

A. Concentration tests

Determination of the maximum concentrating ability in response to water deprivation is a sensitive test of the function of distal tubules. Many methods are available and some of them are unnecessarily complex. If no water is given after 5 p.m. and three hourly urine specimens are collected the following morning, one of them should reveal a specific gravity of 1.025 or greater. Accurate urinometers are essential. Two useful methods are:

a. Fishberg concentration test.
b. The Mosenthal test.

The concentration tests are sensitive indicators in early stages of hypertensive vascular disease, recovery stage of acute glomerulonephritis, but are not adequate for a follow-up of chronic progressive kidney disease.

Advantages:

a. Technically simple, sensitive.

Disadvantages:

a. Difficult to quantitate, affected by non-renal diseases, such as sickle cell anemia, aldosteronism a. o.
b. Dehydration may cause discomfort to patient.

B. Dilution Tests

Loss of ability to dilute urine is a later consequence of renal damage and is rarely as striking as the loss of concentration power. It is, therefore, of little clinical value to incorporate a dilution test.

II. Clearance Tests

These tests measure the ratio of the urinary excretion to the average blood level

simultaneously determined and involve a somewhat complex calculation. They primarily evaluate the function of glomerular filtration. The most common substances used for clinical clearance tests are: urea and creatinine. The chemical determination of non-protein nitrogenous products in blood (urea nitrogen, uric acid, creatinine) is not a sensitive test of early renal damage.

A. Urea Clearance Test (Van Slyke)

Advantages:

a. Easy to quantitate.

b. Indicates a specific function (glomerular filtration rate).

Disadvantages:

a. Affected by renal blood flow which in turn may be affected by many non-renal conditions, such as heart failure, salt depletion, hypotension, protein intake, hemorrhage, etc.

b. Time consuming.

Sources of error:

a. Inaccurate timing.

b. Incomplete bladder emptying.

c. Infection with urea splitting organisms.

B. Creatinine Clearance Test

Has the advantage of being independent of urine flow but the disadvantage of nonspecific nature of commonly used chemical determinations.

C. Inulin Clearance Test

This is a more specific test of glomerular filtration since inulin is completely filtrable by the glomerules and is not reabsorbed by the tubules. For clinical purposes it has the disadvantage of requiring a rather tedious chemical procedure and must be administered by infusion and is, therefore, used primarily for research purpose and special investigations.

III. P.S.P. Test

This empirical test which measures primarily tubular activity and renal blood flow retains its usefulness after more than 50 years. It has fallen in some disrepute because the so-called "standard" two hours test is not nearly as sensitive or useful as the fractional, intravenous 15 minute test. Directions calling for the patient to void and discard the urine at the time the dye is injected are incorrect. P.S.P. is an exogenous substance not present in the bladder urine prior to its administration and its quantitative estimation is improved by having urine in the bladder at the time excretion begins. This is particularly important in the 15 minute fractional test.

It has been shown that the 15 minute P.S.P. test not only indicates renal tubular function but the lowest glomerular function compatible with that level of tubular activity. Glomerular function of 45% of normal is adequate for maintaining homeostasis under stress (including the most stressing operative procedures). This corresponds to a 15 minute P.S.P. excretion of 15%. If the P.S.P. excretion is less than 15% in 15 minutes, further tests such as urea or creatinine clearance are necessary to evaluate the renal status of patients anticipating operative procedures.

Advantages:

a. Technically simple.

b. Independent of urine flow.

c. Measures renal blood flow.

d. Suitable for a rapid pre-operative evaluation of kidney function.

Disadvantages:

a. Insensitivity of the commonly used two hour test.

IV. Radioisotope Renogram

Diagnostic use of radioisotopes for evaluation of renal function appears to be of established clinical value in selected cases. Unfortunately, it requires two matching probes and counters so that not all radioisotope units are as yet able to include the test and it is not as yet suitable as a routine procedure. I^{131} labelled o-iodohippurate (Hippuran) appears to be the isotope of choice since it is rapidly picked up by the kidney by glomerular filtration and tubular

NORMAL AND ABNORMAL FINDINGS OF SOME RENAL FUNCTION TESTS

TEST	STATUS OF RENAL FUNCTION			
	Normal	Slight Impairment	Moderate Impairment	Marked Impairment
1. *P. S. P. excretion*				
a. 15 min. i. v.	28%-50%	15%-27%	8%-14%	8% or less
b. Two hrs. i. v.	60%-75%	40%-50%	25%-39%	24% or less
2. *Mosenthal Concentration*				
a. Variations in Sp. Gr.	1.010-1.021	1.010-1.016	1.006-1.009	1.003-1.005
b. Volume of night urine in ml.	250-500	700-800	800-900	900 or more
3. *Fishberg Concentration*				
Spec. Gr.	1.025 or higher	1.020-1.024	1.012-1.020	1.008-1.011
4. *Retention of Nitrogenous Products in Blood*				
B. U. N. (mg/100ml.)	9-15	20-30	31-60	61-300
Uric acid (mg/100 ml.)	2-5	6-9	10-12	13-25
Creatinine (mg/100 ml.)	1-2	2-3	3-5	5 or more
5. *Urea Clearance (Van Slyke)*				
% of average normal function	60 or more	40-59	20-39	19 or less

TABLE I

secretion and is not excreted by the liver to a significant degree.

Renogram may be indicated as one of several tests in:

a. Evaluation of renovascular hypertension.

b. Urinary tract obstruction.

c. Evaluation of individual kidney function without a catheter.

Renogram is not indicated in:

a. Routine screening of all patients.

b. Quantitative estimation of renal function.

c. Differential diagnosis of morphologic disease.

d. Differential diagnosis of hematuria or pyuria.

Further experience and development of a simple, standard quantitative technic of interpreting the tracings are essential before a final assessment of the place of the radioisotope renogram in the evaluation of the renal function.

Normal and abnormal findings in various kidney function tests are summarized in Table I.

Summary:

1. Some clinically useful renal function tests have been outlined.
2. A detailed history and thorough examination of the urine remain the diagnostic cornerstone of renal diseases.
3. The fractional 15 minute intravenous P.S.P. test is a sensitive test of early renal damage and is useful for a rapid pre-operative evaluation of the renal status.
4. Normal and abnormal values of various renal function tests have been tabulated. ◄

LABORATORY MEDICINE

Published periodically as a review of clinical laboratory procedures suitable for laboratories with minimal equipment.

Cystinuria

A. WENDELL MUSSER, M.D.*

HOMEOSTASIS of the physiology of the human body depends a great deal upon the efficiency and normal operation of the renal transport mechanisms. Urine is formed by ultrafiltration of plasma through the glomerulus and by selective reabsorption and secretion in the proximal convoluted tubules. Reabsorption takes place by means of the renal transport mechanisms. The exact biochemical and genetic make-up of many of these mechanisms is unknown. Single and multiple defects in the renal transport mechanisms are known.

Cystinuria is a congenital and inherited defect characterized by the excretion of cystine, lysine, arginine and ornithine (dibasic amino acids) and by the tendency to form cystine renal calculi. Strong evidence now supports the theory that the biochemical nature of the disorder is an impairment of the reabsorption of these four amino acids in the renal tubules. Genetically, Harris, Bostrom and Tottie have regarded individuals with the disease mentioned above as homozygotes of "recessive cystinuria" or of "incompletely recessive cystinuria." In families with "incompletely recessive cystinuria," individuals occur with a condition characterized by a moderate excretion of cystine and lysine, a normal or only slightly elevated excretion of arginine and ornithine and a very slight tendency to cystine calculus formation.

Fanconi Syndrome

Cystinuria occurs also in association with the Fanconi syndrome. The Fanconi syndrome is characterized by rickets, stunted growth, albuminuria, glycosuria, and amino-aciduria. This disease can be clinically divided into the adult and infantile type. The two types are identical physiologically and pathologically but differ according to their time of onset. The infantile type usually occurs during the first six to eight months of life, the adult type during the second or third decade. The primary defects of Fanconi syndrome lie in the renal transport mechanisms for glucose, phosphates, amino acids and, to a lesser degree, for water and potassium.

Cystinosis (Lignac's disease) is another form of cystinuria. Clinically these patients

* Formerly at Indiana University Medical Center. Now at Womack Army Hospital, Ft. Bragg, North Carolina.

have all of the manifestations described in the Fanconi syndrome. Cystine crystals are deposited throughout the body in the reticuloendothelial cells. Cystinosis is not genetically related to either cystinuria or the Fanconi syndrome. No reason is known for the deposition of cystine in the tissue. We do known that cystine appears to be present in the serum in normal amounts, that cystine is excreted through the urine in slightly increased amounts along with elevated levels of other amino acids.

Cystinuria can be diagnosed by the presence of excessive amounts of cystine in the urine. Fanconi syndrome is suspected and verified by the clinical course of the disease in association with (1) polyuria with fixed specific gravity, (2) albuminuria, (3) glycosuria, (4) phosphaturia, (5) amino aciduria, (6) low serum phosphorus, (7) low serum potassium, and acidosis. Cystinuria can be differentiated from cystinosis by (1) determining the type of amino aciduria and (2) the clinical pattern.

By special technic, such as paper chromatography, one can demonstrate that in cystinuria the amino aciduria is limited to the four diabasic amino acids, with the other amino acids being excreted in normal quantities, while in cystinosis the amino aciduria is a generalized one. Cystine is not deposited in the tissues in cystinuria or Fanconi syndrome.

Although these entities are relatively uncommon, a screening method for cystine in the urine would be of great clinical use. It is estimated that one in six hundred of the general population excretes abnormal quantities of cystine in the urine. Only the homozygous group would have a clinical problem, and the occurrence rate of the homozygous state is unknown at this time. The frequency of cystinosis in the general population is estimated to be roughly 1 in 40,000.

Method

Pipette 5 ml. of urine into a test tube and add 2 ml. of 5% sodium cyanide. The 2 ml. quantity can be approximated by pouring without doing the usual manual pipetting. Mix and allow to stand for 10 minutes. Add 5-10 drops of a 5% sodium nitroprusside solution and mix well. The development of a magenta (red) color indicates a positive test. Normal urine shows a pale brown or occasionally a very faint flesh color. Allow mixture to stand 20 minutes before reporting a negative reaction.

Reagents

1. 5% sodium cyanide—dissolve 0.5 grams of sodium cyanide in 10 ml. of distilled water. Prepare fresh each day.
2. 5% sodium nitroprusside—dissolve 0.5 grams of sodium nitroprusside in 10 ml. of distilled water. Prepare fresh each day.
3. Known positive solution—dissolve a few crystals of cystine in distilled water. crystals dissolve very slowly.

REFERENCES

1. Dent, C. E., Heathcott, J. G., Jeron, G. E.: The pathogenesis of cystinuria. *J. Clin. Invest.* 33:1210-1226, 1954.
2. Dent, C. E., Rose, G. A.: Amino acid metabolism in cystinuria. *Quart. J. Med.* 20:205-219, 1961.
3. Dent, C. E., Senior, B.: Studies on the treatment of cystinuria. *Brit. J. Urol.* 27:317-332, 1955.
4. Fanconi, G.: Der frühinfantile nephrotisch-glykosuriche Zwergwucks mit hypophosphätamische Rachitis. *Jahrb. f. Kinderh.* 147: 299-338, 1936.
5. Fischl, J., Sason, I., Segal, Sara: A rapid spot test for the determination of cystinuria and aminoaciduria. *Clin. Chem.* 7:674-677, 1961.
6. Harris, H., Robson, E. B.: Cystinuria. *Am. J. Med.* 22:774-783, 1957.
7. Knox, W. E.: Sir Archibald Garrod's "Inborn Errors of Metabolism." *Am. J. Hum. Genet.* 10:3-32, 1958.
8. Lewis, H. B.: The occurrence of cystinuria in healthy young men and women. *Ann. Int. Med.* 6:183-192, 1932.
9. Lignac, G. O. E.: Über den Cystinstoffwecksel, *Munchen. med. Wchnschr.* 71:1016-1017, 1924.
10. Milne, M. D., Asatoor, A. M., Edwards, K. D., Loughridge, L. W.: The intestinal absorption defect in cystinuria. *Gut.* 2:323-337, 1961.
11. Wollaston, W. H.: On cystic oxide, a new species of urinary calculus. *Phil. Tr. Roy. Soc.*, 223, 1810.

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Talk Gives Clear Picture of Pharmaceutical Objectives

JOHN E. McKEEN, president of Chas. Pfizer & Co., in an address before the Arden House Conference on Science and the News, presented to the attending newspaper, magazine, radio and television executives an unusually lucid account of the pharmaceutical manufacturing industry as regards that industry's objectives, tribulations and accomplishments.

Coming at the time of the Kefauver Congressional investigation, and no doubt conceived as an answer to the charges emanating from the investigation, Mr. McKeen's report outlines many facts which counteract the impressions which were created at the congressional hearings by distortion and innuendo.

Point No. 1: The drug industry spends a larger proportion of its earnings on research than do other industries. Example: The early development of penicillin cost $28 million, $25 million paid for by the industry, $3 million by the government. By 1944 this research had increased the yield of the primary fermentation from two parts per million of broth to 1000 parts per million.

Point No. 2: Pharmaceutical research produces a fantastic number of failures. 114,600 substances were tested in 1958; only 40 became marketable drugs. The failure ratio that year was 2,865 to one.

Point No. 3: No matter how expensive, drug research has paid high dividends in lowered mortality rates. From 1951 to 1960 the industry spent $1,152,000,000 in research. At Pfizer, the research bill for 1961 was over $13,000,000. However, since 1935 the mortality rates for pneumonia, tuberculosis, influenza and syphilis have declined to such an extent that two million Americans now living would have been dead if 1935 rates had remained the same.

Point No. 4: Drug prices have declined in the past twelve years. Wholesale drug prices have gone down 7.6% since 1949, while the index of all other goods has gone up 26.7% during the same period.

Point No. 5: The drug industry has developed and produced many highly effective drugs which cure diseases rather than relieve symptoms. Ninety-four important drugs have been developed since 1945. Fifty-two of these were discovered in the United States. Forty-nine of the 52 were

discovered by drug companies or by university scientists financed by drug companies.

Point No. 6: Sometimes an effective drug, developed at great expense, is obsolete by the time it is produced. In 1943, penicillin was scarce and expensive. Since it was excreted quickly by the kidneys, large doses were required to maintain adequate blood levels. A search was started for a drug which would limit kidney excretion of penicillin. After eight years the drug was found, but by then penicillin was so plentiful and inexpensive that the new drug was not needed. Fortunately, in this case, another use was found for the new drug.

Point No. 7: As G. E. Frost, authority on patent law pointed out, "There is a direct and favorable correlation between available patent protection and the rate of new drug discovery. Since 1940 the United States, with the strongest patent protection, has produced 60 new drugs, while England, France, Germany and Switzerland, with varying and more limited patent protection, produced 29. Italy, with no patent laws, produced none."

Profits of pharmaceutical companies have been demonstrated to be reasonable and well within the range of profits for other industries with comparable profit and loss factors. The high investment in research is necessary for the development of new drugs, and accounts for an almost unbelievable expansion of potent therapeutic agents. The money for research must come out of profits.

When the failure ratio in drug research and the high obsolescence of drugs is considered, it is difficult to understand how the industry has been able to finance research and at the same time lower the wholesale price of drugs by more than seven percent in the last twelve years.

Certainly any talk of compromising the protection afforded inventive research by the U. S. patent law is the sheerest nonsense. The opportunity to recoup research expenses and to reward inventive ingenuity is the guarantee for continued discoveries for the benefit of mankind.

Legislative Action—Political Education—Political Action

LEGISLATIVE action, political education and political action sound a lot alike. However, if medical organizations are to participate in any of these endeavors it is well, and in fact mandatory, that the exact definitions of each and the ground rules of each be mastered.

C. Joseph Stetler, General Counsel for the AMA addressed the AMPAC annual meeting in Chicago on June 24 on this subject. The following information is taken from his speech.

First, legislative activities are those actions which are aimed at influencing the status of pending bills before a legislative body.

Such actions include activities of registered lobbyists, the presentation of testimony before legislative committees, the submission of written statements, and the preparation and publication of printed material to defeat the King-Anderson bill as well as other similar type proposals.

Legislative activities may be pursued by medical societies and medical associations.

Secondly, political education is a nonpartisan effort for the common good and includes voter registration drives, get-out-the-vote campaigns, instructional courses in political action, assistance in formation of political action committees and the furnishing to the public of the voting records, platforms and promises of political parties and candidates.

Political education is a proper activity for medical organizations.

Thirdly, political activities refer to partisan political activities such as contributing directly to the campaign expenses of candidates, purchasing radio or television time for candidates, distributing printed mate-

rial urging election of a candidate, paying for advertising space for candidates and purchasing campaign buttons or similar advertising material and paying the expenses of a meeting in the interest of a candidate.

Individuals may contribute to or engage in political activities. Corporations, including medical societies and medical associations, are prohibited by law from such activities. Individuals may form unincorporated organizations such as AMPAC and I-HOPE and legally engage in political activities.

Organizations such as AMPAC and I-HOPE may engage in legislative action and political education, in the same way individuals and corporations are allowed to, but organizations such as this are the only legal instruments for joint political activity, and it is for this purpose that they are organized.

Mr. Stetler, in addition to explaining the above facts, also pointed out that the laws of the several states differ in details from each other and from the federal law, and that all medical organizations should have legal counsel for their political activities.

Accidental Death

SINCE THE YEAR 1900, the death rate from accidents was highest in 1906—99.5 deaths per 100,000 population. Strangely enough it was in 1906 that deaths from motor vehicle accidents became numerous enough to be statistically significant.

Since 1906, and in spite of a sharp rise in automobile deaths from 1906 to 1937, the death rate from all accidents has declined in an irregular and fluctuating curve down to the 1961 rate of 51.5, the lowest ever recorded. If auto deaths were to be excluded from the 1961 rate to make it comparable to the 1906 rate which was almost entirely non-automobile in causation, the rate today would be 30.0, a third of the highest annual rate since 1900.

Tribute is paid to safety standards and safety campaigns in agriculture and industry, for the sensational reduction in loss of life. Despite the fast increase in mechanization and industrialization and the tremendously enlarged work force both mandatory and voluntary safety devices have spared thousands of lives. Since 1937 fatal accidents at work have declined from a rate of 43 per 100,000 workers to 22 in 1960.

Another category which has contributed to the satisfactory record is that of non-motor vehicle accidents occurring in public places. This decrease has taken place in spite of the increased participation of Americans in sports and outdoor recreation, and in flying. In the past 20 years the death rate for scheduled airlines per 100 million passenger miles has fallen from 7.8 to 1.01. Passenger trains are the safest form of public transportation with a fatality rate of 0.16 per 100 million passenger miles.

Home accidents have shown the least improvement. The absolute number of deaths in this classification has averaged around 30,000 per year since 1928, and has varied but little from year to year. 30% of all accidental deaths in 1960 occurred in the home. Falls, fire and poisoning were the principal agents.

While the absolute number of auto deaths has been above 30,000 per year since 1923, the rate of death per 100 million vehicle miles has fallen almost steadily from a rate of 16 in 1923 to 5.3 in 1960, and it may be even lower in 1961. The rate in Indiana in 1960 was neither the worst nor the best in the U. S. In fact it was just under the national rate—5.2.

George Bugbee, President of the Health Information Foundation in whose bulletin "Progress in Health Services" these statistics are listed and discussed, points out that accidents rank fourth among the leading causes of death in the United States, and cause a little over 5% of all deaths.

He also reminds us that even after the phenomenal improvement, this country still loses about 90,000 citizens per year from accidents, has 9½ million disabling injuries at an annual cost of about $13.5 million.

The progress so far has been made on a

basis of organized and persistent public information and education. The National Safety Council, the National Fire Protection Association, the American Red Cross and numerous other voluntary and government agencies and industries, have accomplished an outstanding job.

Further progress depends on more of the same. Accidents are or should be made preventable. The ideal is not to cut them to one-half or one-third but to eliminate them entirely. Such Utopia is not possible, but no one can tell how far the fatality rate can be depressed if proper measures are vigorously prosecuted.

Political Activity A Necessity

Question: Should physicians, as individuals and in groups, become more active in politics?

Answer: It is no longer a question of "should"—it is a "must!"

Too many physicians still feel that "politics is not for us . . . leave it to the political parties . . . we just don't have the time, the inclination or the know-how."

We are now on the threshold of the most important election in recent history. Unless physicians, their wives, their families, their friends and their allies become not only "interested" but devote time, effort and money to political endeavor the practice of medicine as we know it today can easily go down the drain.

When the King-Anderson bill was defeated in the Senate, recently, its proponents lost no time—from all quarters—in announcing that those senators who voted against the proposal would be marked for defeat this fall as well as members of the House aligned with medicine and its friends.

Why shouldn't the doctors and their allies fight back? It not only is their right and privilege—it is their duty.

One of the best ways for physicians to make their impact felt is through political action committees. A relatively few have done so—but too many have not. In Indiana, for instance, about one-fourth of the physicians have contributed to their own political action committee. Too many of those who have given have been content to subscribe only $5 or $10. Surely freedom and preservation of the American system of free enterprise is worth at least as much as the annual dues to the country club.

Recently we read a hard-hitting speech by Mr. Maurice Stans, director of the budget in the Eisenhower administration and now president of Western Ban Corporation of Los Angeles. In it he said this:

"I believe that one of the reasons behind the tensions and trends in America is that business and professional men at every level have been so preoccupied with their own affairs that they have to a degree defaulted in their defense of our American institutions. The sophisticated American, in this troubled age, has to be much more than merely a seeker of profit . . . he must believe deeply in the preservation of the American system . . . and he must accept his own responsibility to shape public opinion, at home and across the nation. . . ."

Then he asked: "Are you willing to select carefully and support the political candidates, regardless of party, whose views are closest to yours? Would you dig down to contribute more—as much as five percent of your income—to the political campaigns of those who stand with your convictions?"

That is a pertinent question for these times—and one which only you can answer.

Too Much Fat and Too Many Calories

THE U. S. FOOD and Drug Administration has stated within the past few years that "the American food supply is unsurpassed in volume, variety and nutritional value," and that "Americans have to go out of their way, nutritionally speaking, to avoid being well nourished."

Dr. Robert S. Goodhart, Scientific Direc-

tor of the National Vitamin Foundation, in a report to the Symposium on Nutrition in Richmond, Virginia, last December, presented scientific facts which would seem to cast some doubt on the above statements.

The government's own figures indicate that the diet in 1958 was surpassed in volume, variety and nutritional value by the diet in 1944, and in some factors the 1958 diet was surpassed by that for the years 1930 to 1934.

The 1960 edition of "Health, Education and Welfare Trends," published by HEW, shows a difference in nutrients available for consumption per capita between 1958 and 1944, with a decrease in calories, proteins, six listed vitamins and two listed minerals. The only increase in the 1958 list was for fat and this was to the extent of only 1%. Iron was decreased 13%, thiamine 16%, ascorbic acid 23% and vitamin A 22%.

In 1958 there were 3,170 calories available for each man, woman and child. This is at at least one-third more than required. The excess in calories must have been wasted and with it went a substantial portion of the already deficient vitamin and mineral supply.

The above information would indicate that, except for those individuals who took supplementary vitamins and minerals, Americans in 1958, even if they had eaten all food available, would have been deficient in vitamins and minerals, and would also have been over-supplied with calories by one-third, both of which conditions constitute malnutrition.

Two nationwide nutrition surveys made during the years 1947-1955 revealed that a significant numbers of persons were receiving less than two-thirds of the Recommended Dietary Allowances (RDA) for vitamin A, thiamine, riboflavin and ascorbic acid. Another interesting finding was that, while family consumption records tended to be near normal, individuals in the family varied widely in their acquisition of important foodstuffs, and the mother and teenage girls were the worst fed.

Dr. Goodhart's conclusion is that Americans are not eating adequate diets in so far as the elusive vitamins and minerals are concerned, and that they are eating too much fat and too many calories.

He takes notice of the fact that mortality rates for people over 65 years of age have not decreased since 1945, and the mortality rates for all ages have not decreased during the past six to eight years. While it has not been proven that there is a connection between the nutritional deficiencies that have developed or become worse since 1944 and the stable mortality rate, it is his feeling that there is a connection.

Editorial Notes . . .

The study of the alkaloids of the periwinkle plant which was started by Eli Lilly and Company five years ago has now discovered a total of 23 alkaloids, 20 by Lilly and three by co-discoverers. Four of the alkaloids have shown activity against tumors in animals and two (vincaleukoblastine (VLB) and leurosine) have shown promise in the treatment of human tumors. The work continues but it has already demonstrated that the one plant is a "gold mine" of medicinal agents.

Two VA researchers, PhD's Dexter Goldman and Andre Pierard, have traced the first step of a mechanism by which the tubercle bacillus produces toxic substances. That these toxins are lipids which can produce reactions in the body characteristic of tuberculosis without the presence of the bacilli has been known for some time. The mechanism by which the lipid toxic substances are produced has not been known until recently. Further research is scheduled to utilize this knowledge in the treatment of tubercle bacilli which are resistant to known therapeutic agents.

Contrary to popular opinions, the smaller cities of the United States are now recording the fastest population growth. Cities from 10,000 to 14,999 residents in 1950

gained as a group by 35% by the year 1960. Cities between 15,000 and 24,999 gained by 30.7%, those from 25,000 to 49,999 by 23.6%, those from 50,000 to 99,999 by 17.2% and those over 100,000 by only 6.9%. These were average gains for the country as a whole; largest gains were in the West and Southwest; smallest gains and most of the absolute losses were in the Northeast and along the middle Atlantic coast. Despite the low percentage gain for larger cities, the absolute increases were large, and the large cities now contain 59% of all the population of cities over 10,000.

Quote from the Metropolitan Life Insurance Statistical Bulletin in regard to human factors in motor vehicle accidents: "Life insurance companies have long been aware that socially maladjusted individuals are more likely to be involved in accidents than are those without such difficulties. In this context, the socially maladjusted include persons who have had credit difficulties, a record of juvenile or adult court offenses against persons or property and truancy from school. Behavioral scientists now generally recognize that basic personality characteristics and attitudes of drivers are specific factors in the causation of violations and accidents."

Medical terminology is too complicated—but may be made less complicated. The AMA is publishing a book, Current Medical Terminology, which has eliminated outdated terms and has catalogued the useful forms with their synonyms, causes, symptoms, signs, etc. An original list of 17,000 diseases and conditions has been cut down to about 4,000. Each listing has a code number for use by researchers and other number-using physicians. Dr. Burgess Gordon, the editor, states that much of our terminology has grown without direction since Hippocrates and is now in need of pruning and standardization. This the book attempts to do.

Five hundred and forty-four new drugs, all single chemical entities, are listed in "Review of Drugs, 1941-1961." More than 60% were originated by American firms. U. S. firms additionally developed and marketed about 95% of the total.

Three hundred and forty drugs of the 544 are covered by U. S. patents, and U. S. patents are pending on 43. Ten European patents are listed.

The establishment of normal eating habits is encouraged by the AMA Council on Foods and Nutrition, when it opposes the sale and distribution of candy and carbonated beverages in school lunchrooms. In a recent statement the Council advised strongly against the practice of making such high calorie, low vitamin foods available to students at a time when they should be forming food habits for more nutritious preparations.

Research expenditures by the pharmaceutical industry were up by 13% in 1961 over 1960 to a total of $245.3 million. This amounts to eight percent of sales and is about five times what it was in 1951. The total investment in research is three times that of an average industry. Sales of prescription drugs were up five percent worldwide to $2.9 billion. Research budgets are expected to top $268 million in 1962.

Hospital cost per patient-day in nonfederal short-term general hospitals (which admit 91.7% of all patients) in 1961 was $34.98, an increase of $2.75 over the cost in 1960. The average length of stay was 7.6 days, the same as in 1960. The average number of employees per 100 patients was 235 in voluntary short-term hospitals.

The U. S. Army Senior Medical Student Program, under which medical school seniors accept a reserve commission and complete their last school year in medicine with full pay as a first lieutenant in return for service on active duty for three years immediately following internship, has had an increasing enrollment each year. This year 102 seniors will serve under the program, an increase of 34 over last year. The participants serve either a military or civilian in-

ternship in accordance with the National Intern Matching Program. After their three-year tour of active duty, they may return to civilian life or be considered for further active duty.

Indiana University School of Medicine has been granted $16,500 for research by Dr. John B. Hickam on the retinal circulation, by the Life Insurance Medical Research Fund. The Fund is supported by 135 member life insurance companies. It has been in existence for the past 17 years, during which time it has allocated more than $14 million for research in heart, circulatory and allied diseases. This year's grants total $1,183,000.

New drugs, in the future, will undergo a more detailed and strict investigation regardless of what improvements are made by the Food and Drug Administration. A Commission on Drug Safety is being established and will be financed by the Pharmaceutical Manufacturer's Association. Dr. Austin Smith announced that the commission membership will include specialists in medicine, toxicology, physiology and other disciplines; and that research more intensive than any conducted in the past would be applied to prevent the use of toxic drugs. The new commission has been formed as a result of the experience with thalidomide. The fact that thalidomide is the first drug ever to be concerned with malformation of infants gives an indication of how thorough drug investigation must be in the future. Dr. Lowell T. Coggeshall, vice president of the University of Chicago, has accepted appointment as chairman of the commission. ◄

"A Crab Ain't Got No Sense"

We have been publishing frequently a quote from Nikita Khrushchev.

This month we can tell the story in another way, quoting Dr. Thomas W. Goodwin, President of the Medical Association of Georgia, discussing the King-Anderson Bill:

"Not long ago I was visiting down on the coast. One afternoon I went into the kitchen where the cook was boiling some crabs. During the course of the conversation, the cook, an old Gullah Negro, said to me, 'Doctuh, a crab ain't got no sense.' 'What do you mean?', I asked. 'Well,' she says, 'Efn yo tek a live crab and drap him in a bucket of bilen water, he'll scramble and fight t'well he gits outen de bucket. But, efn yo tek dat same crab and put him in a bucket of cold water and sot it on de stove, and turn on de heat kinda gradual like, yo kin bile him alive an he won't never know wat hoppen.' "

Reprinted from the Journal of the Medical Association of Georgia, June, 1962.

President's Page

IMPORTANT ! ! ! ! PLEASE READ IN FULL

The request above that you read this article in full pertains to the subject matter involved and certainly not to the literary excellence of the writer. So thank you for getting this far and please continue to the end. Even more important, give yourself a "break" by thinking over seriously what you have read.



Since this is the article which appears in the September *Journal* which can be considered the convention issue because it carries the complete program for the annual meeting in French Lick in October and also the printed reports to the membership of the Association of all the committees and commissions, I had intended using this month for sort of a "swan song" for me nearing the end of my year as President of the ISMA. I had intended to perhaps review some of the accomplishments of this past year and also point up some of the areas and places where we may have been remiss and must do a better job this coming year. However many things have appeared on the political scene which demand that I again call to your attention "the facts of life" in regard to the relationship of the physician and practical politics.

The election coming up in November of this year will be the most important election in recent years, and can even be described as the most important election ever held as far as physicians and the whole free enterprise system is concerned. If the proponents of welfare statism and government handouts are successful this fall in sending people to Congress with like views, our free enterprise system will suffer a blow from which it may never recover.

When the King-Anderson bill was tabled in the Senate, thus killing this type of legislation in Congress for this session, there was immediate announcement from proponents that all possible would be done to make it an issue in the 1962 Congressional elections. In other words these Senators who voted against King-Anderson and who would be up for re-election this fall would be marked for defeat along with Representatives who had aligned themselves with the medical profession and its many, many allies in the battle against the bill's enactment. You should all realize here and now that medicine and free enterprise have only won a battle, for as surely as one day follows the other these same issues will appear again and again in the next Congress and in the next and so on ad infinitum, and the battle will continue to be waged. It is up to you and me to decide whether or not we are to continue to win these battles and perhaps eventually the war.

Physicians should support political action committees which have been formed to work for the election of congressional candidates dedicated to the preservation of the free enterprise system, including the private

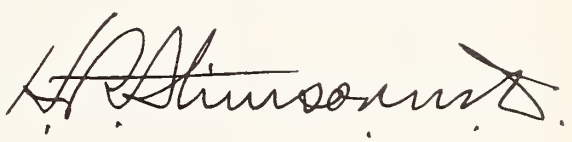
practice of medicine. Effectiveness of these political action committees will be in direct proportion to amounts subscribed by physicians. There are too many who, apparently, are imbued with the philosophy of "letting George do it" or if they do contribute it is in the sums of $5 or $10.

It would seem, for instance, that preservation of freedom should be worth as much as the annual dues to a country club. In Indiana only about one-fourth of the total number of doctors have seen fit to contribute to a political action group. Some of these are truly dedicated, having given three or four times in substantial amounts. But too many have subscribed nothing. The only explanation that I can imagine for this is that these doctors do not realize the threat to their freedom and the urgent need for their support.

Being politically active, too, means alignment of the physician and his wife and friends with the party of their choice. It means that the doctor should, when the opportunity presents itself, take just a few seconds to explain some of the facts to his patients, and to urge them to register, work and vote. The physician's wife in her many contacts with organizations and individuals should do the same thing. There is no limit actually to the amount of constructive work and building that the physician and his wife can accomplish in practical politics.

Are we going to stand by and be "sold down the river" without even a struggle, or are we going to do something about the whole political setup? I have heard doctors say "what's the use, socialized medicine is coming anyhow." I am sure many of you have heard this and perhaps even some of you feel this way yourselves. But I for one, and there are many like me, do not believe that "socialized medicine" is inevitable and with the right kind of effort on our part it CANNOT be forced upon the American people. And anyhow, in the last analysis, if this should come to pass, it surely is more honorable to go down fighting instead of sitting still and "playing dead."

So get on the "ball," each and every one of you, and give your support to these political action committees NOW, for it is NOW that your supporters in congress need your help.



The Woman's Auxiliary

REPORTS TO ISMA

By the time this issue of *The Journal* is out, the Auxiliary will have held its "area workshops," at which time the various state chairmen will have attempted to inspire a representative group from the county auxiliaries regarding the numerous projects of the Auxiliary. Besides our active participation in the AMA-ERF, Legislation, Health Careers Recruitment and Scholarships, and our cooperation in Safety, Rural Health, Mental Health, and Community Service, the Auxiliary is now branching out into the field of International Health Activities by attempting to aid World Medical Relief.



Mrs. Virgil McMahan

This is a project through which we hope to collect sample drugs and discarded medical equipment which will eventually find its way overseas where such things are desperately needed by missionary doctors of all faiths. Nothing from your office is too old or too antiquated to be of use. So don't throw away anything, doctor. Contact someone in the Auxiliary, and we'll see that your discards are put to good use.

We are looking forward to State Convention, and I would like to take this opportunity to give credit to some of the people who are helping with the ladies' program. Kathleen McMahan is serving as chairman of Women's Activities. Katie is the wife of Dr. Virgil McMahan, general chairman of the convention. Assisting Mrs. McMahan will be Mrs. Edward T. Edwards, Vincennes, the Knox County Auxiliary, Mrs. Joseph C. Lawrence, Evansville, who will have charge of the Tuesday afternoon card party, and Mrs. Ray H. Burnikel, Evansville, chairman of the ladies' golf tournament.

See you all at Convention.

Mary Johnson





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SEARLE

Research in the Service of Medicine

Kinetics of a Vital Industry

WILLIAM C. CONNER
*Fort Worth, Texas**

DURING THE PAST TWO DECADES, we have witnessed a remarkable transition and growth in the field of medicine and in the health of the people of this nation. With the increasing population it appears that because of sheer numbers alone, an even greater growth and development is an economic and social necessity.

The physician and the ethical pharmaceutical industry are "partners" in the vital endeavor to rid the earth of illness and suffering. The word "vital" imparts a double meaning. On the one hand it denotes essentiality and urgency. On the other it denotes the vigor with which essential needs are attacked. The existence of the industry is premised on the fact that the physician has a need for more and better drugs to assist him in his efforts to improve the health of mankind.

That the industry has attacked this problem and challenge with vigor is evident in the number of useful drugs the physician now has at his command. I believe that the surface has just been scratched in providing mankind with improved health and relief from misery. A long road still lies ahead, and the vitality with which it is undertaken by both the physician and the ethical pharmaceutical industry, singularly and together, will determine the degree and rapidity of success which will be realized.

Discoveries Not Luck

How have the advances in the fields of medicine, particularly as related to the ethical pharmaceutical industry, occurred, and how will they continue to perpetuate?

A casual observer may feel that this growth simply "happens," especially if he has been exposed to dramatic stories such as Fleming's discovery of penicillin. The same observer may be the individual who, when watching the great Ben Hogan put a difficult approach shot within inches of the cup, remark, "That surely was a lucky shot!" Anyone who has swung a golf club knows that Hogan's shot was not "lucky" and did not happen by chance. Many hours of practice, grooving the swing, positioning his hands and feet, judging distances and perfecting all of the complexities that result in the smooth controlled swing for just that particular situation in a big tournament preceded Ben Hogan's "lucky" shot.

In a similar manner the complexities of the pharmaceutical industry precede the utilization not only of the "wonder" drugs, but of any of the drugs that have been helpful to physicians in the improvement of our nation's health. Once it is determined that a need exists for a new drug, four major factors are involved in its availability as an effective pharmaceutical. They are: (1) discovery; (2) development of methods of production; (3) distribution and marketing; and (4) capital to support these operations.

Discovery

In the area of discovery, there have been contributions from many sources. In addition to research within the pharmaceutical industry, major contributions in research have been made by the medical profession,

Continued on page 1332

* President, Alcon Laboratories, Inc., and a member of the board of directors of the Pharmaceutical Manufacturers Association.



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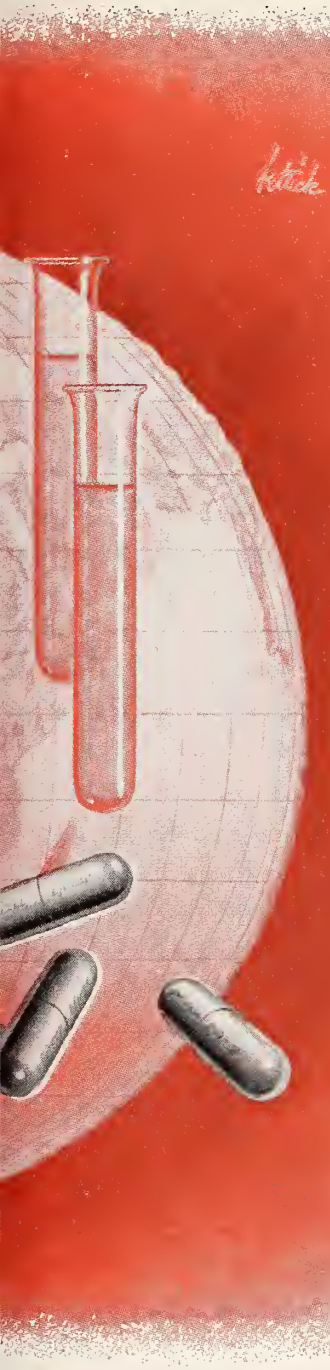
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Boutonneuse fever is a tick-borne, acute, febrile disease often affecting children. The bite site becomes a small, necrotic ulcer. A striking macular or maculopapular eruption develops on the trunk, palms and soles. Onset is sudden, with chills, high fever, violent headache and lassitude. The high temperature—up to 103° F.—characteristic of both boutonneuse fever and bronchopneumonia, drops rapidly following initiation of Terramycin therapy.

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universities and the government. Also there have been some few instances in which drugs were discovered by chance, such as penicillin.

Discovery entails more than just finding a chemical compound. Extensive investigations beginning with laboratory tests, progressing through testing on animals, and concluding with detailed clinical evaluations, are necessary before a new drug can be considered "discovered." Here again the cooperation of the physician is a vital factor.

That considerable funds are necessary to develop and screen the extensive number of compounds that may result in an effective drug is readily evident. This is especially true if one considers that of approximately 100,200 substances tested in 1959, as an example, only about 40 became marketable drugs.

Development

When a new drug is "discovered" the major problems of the pharmaceutical industry have just begun. The next step is to develop some method of taking the compound from a laboratory table to the production line.

To cite penicillin again, it was virtually impossible to produce this antibiotic in large quantities, let alone economically, using the same basic methods as had been employed in the laboratory experiments. It was necessary to construct fermentation tanks of hundreds of thousands of gallons capacity, and to keep them sterile at all times, to produce even small quantities of the drug. Scientific teams within the pharmaceutical industry were able, however, to develop suitable methods which economically provided enough penicillin to save the lives of thousands of wounded men in World War II.

Although the discovery of all new drugs may not be as dramatic as penicillin, they do pose the same types of problems in organizing skilled scientific teams to provide methods and facilities for their efficient production. An essential segment of the problem is that of controlling the quality of all materials produced. Physicians and patients must be able to rely upon the concentrations and constituents of a drug. Thus, extensive quality control procedures have become an integral part of the development and production of a drug.

Distribution and Marketing

Little is gained by discovering and developing an effective new drug if the physician does not know it exists, let alone what its actions are. Further, no therapeutic benefits would occur if the physician was aware of the drug and its effectiveness, but neither he nor his patient was able to obtain it. Accordingly, a marketing and distribution system, which not only provides the physician with knowledge of the product, but also assures him of its availability when and where it is needed, is essential.

The needs of the physician must be continually communicated to the pharmaceutical industry. By the same token it is mandatory that pharmaceutical firms understand the requirements and problems of the medical profession in developing their programs and product promotions. Likewise, in the distribution of ethical drugs, promotional efforts must never be directed to the ultimate consumer—the patient—but only to the physician and pharmacist.

Because of the complexity of marketing new products by the pharmaceutical industry, the efforts and consequently the costs are relatively greater than those of most other industries. Some measure of success in approaching these problems is evident from the results which have been attained. Only through the cooperative efforts, however, of those involved—the physician, the pharmacist, and the manufacturer—can the problems in providing a new drug be solved. The government may exert control over their activities, but it cannot create the vital ingredient of conscientious participation in the discovery, development and distribution of new and needed drugs. This is stimulated only by the driving desires of the parties involved to rid mankind of illness and suffering, and to do it in such a manner that sufficient funds and profits are

Continued



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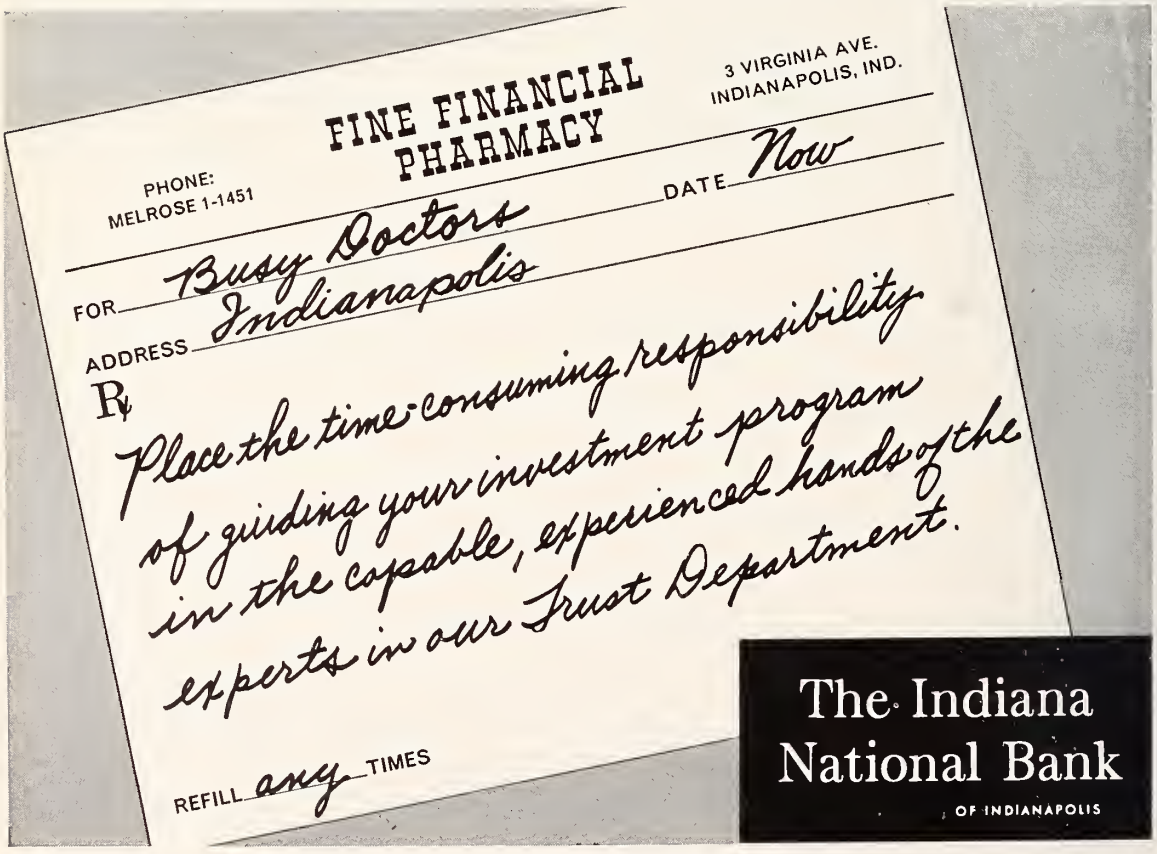
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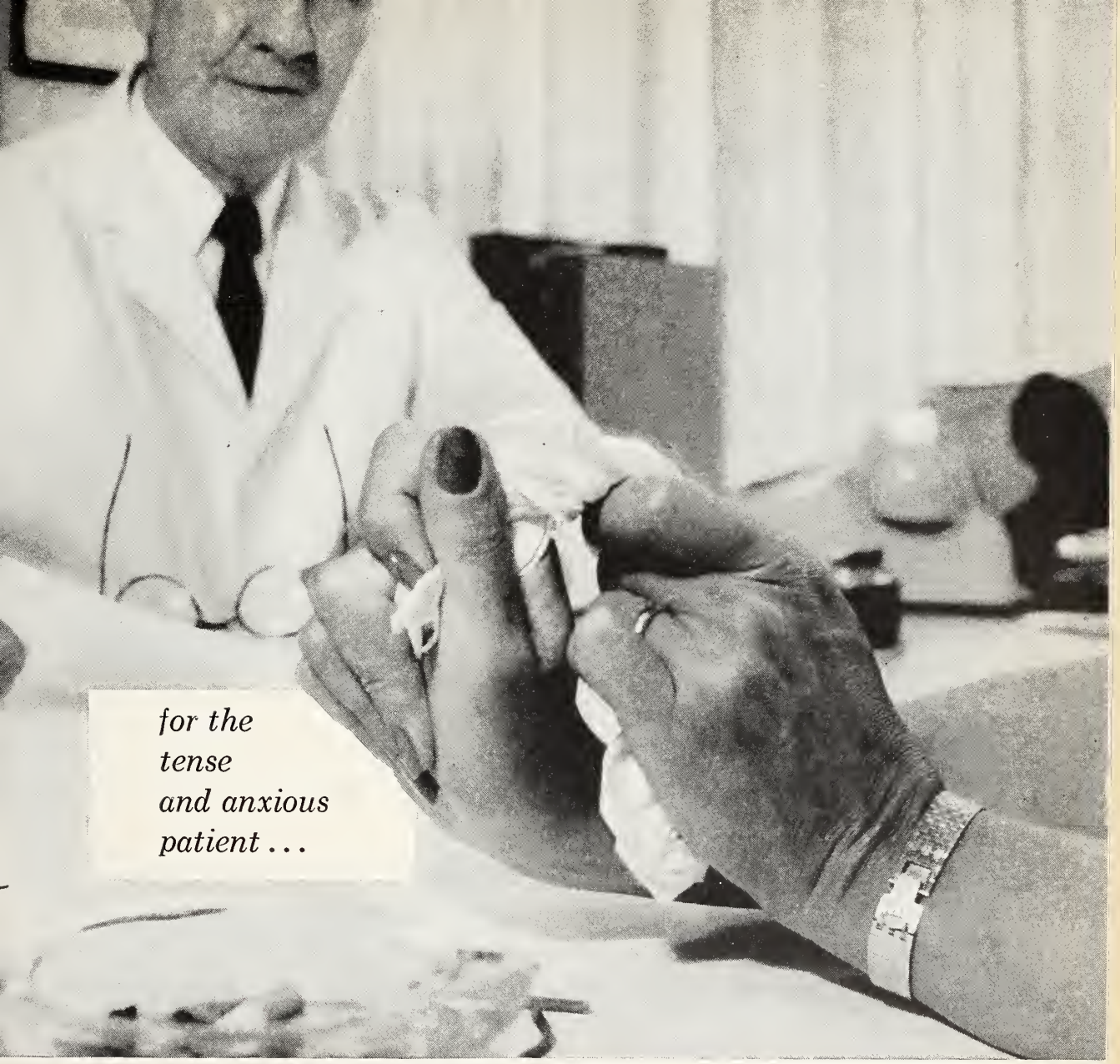
An ethical pharmaceutical firm continually must have enough funds available not only to embark upon the venture of "discovery, development and distribution" of a new drug, but also to accept a failure in any one of the three areas, especially in that of "discovery."

Because of the risks involved the industry must rely upon equity financing to support its growth. Fortunately, because the industry has had a good growth record, it has been able to attract equity financing from outside sources. Nevertheless it is essential that each ethical pharmaceutical firm be able to generate its own capital through "discovery, development and distribution" effectively enough and frequently enough to offset those instances in which large expenditures result in "dead-end" streets. If an individual firm, or the industry as a whole, reaches a point at which it can no longer do this, then it will have essentially choked off its availability of funds, both internally and externally, and consequently will have depleted its capabilities of providing new and effective drugs.

Summary

The driving force behind the growth of the ethical pharmaceutical industry and its means of perpetuation is its ability to use its resources to provide products needed by the physician. This must be accomplished in such a way that funds are regenerated, as well as attracted from outside investment, and recycled to provide additional needed products many times over. With the support of physicians, the industry has done and will do this, through the effective combination of "discovery, development and distribution." ◄





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Gleaned from the British Medical Journal

JACK W. HICKMAN, M.D.
Indianapolis

The frequency of an abnormal glucose tolerance test after a myocardial infarction is demonstrated by Sowton.[1] In this series, 73% of 40 patients showed such a response to the standard oral test, but this figure fell to 43% after six months. At the end of three years, only two of the patients had clinical diabetes mellitus. Various possible mechanisms responsible for this phenomenon are discussed, but the author feels that the precipitation of latent diabetes is the most likely. The importance of recognition that it is usually a transient phenomenon is stressed so that over zealous insulin treatment with potential hypoglycemia can be avoided.

* * *

Suggestions had been made in the past that hyperemesis gravidarum might be due to an increased amount of chorionic gonadotrophin. Fairweather and Loraine[2] measured this substance in 90 such patients and in 20 normally pregnant women. The only difference was a lower excretion of chorionic gonadotrophin in the hyperemesis patients from the seventh to the 15th weeks of gestation. There were no other significant changes in the level of excretion of this hormone between the two groups.

* * *

The potential compensation aspects of hiatus hernia are discussed in a paper by Marchand.[3] In his personal experience with 216 cases in adults he can trace only 11 (5%) to a precipitating traumatic incident. The acute and rather striking acute symptomatology made the association quite clear in these cases. This low percentage of traumatically induced cases compares very closely with other similar reports.

* * *

REFERENCES

1. Sowton, E.: Cardiac Infarction and the Glucose-Tolerance Test. *Brit. Med. J.* 5271, pp. 84-86.
2. Fairweather, D. V. I., Loraine, J. A.: Urinary Excretion of Human Chorionic Gonadotrophin in Patients with Hyperemesis Gravidarum. *Brit. Med. J.* 5279, pp. 666-669.
3. Marchand, P.: Traumatic Hiatus Hernia. *Brit. Med. J.* 5280, pp. 754-759. ◄

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Obstetrics, General & Surgical, Two Weeks, October 8
Urology, Two Weeks, October 29
Surgery of the Hand, One Week, September 24
General Practice Review, One Week, October 8
Gallbladder Surgery, 3 Days, October 8
Surgery of Hernia, 3 Days, October 11
Basic Electrocardiography, One Week, October 1
Advances in Medicine, One Week, October 15
Advances in Surgery, One Week, December 10
Blood Vessel Surgery, One Week, October 22
Board of Surgery Review, Part I, Two Weeks, November 5
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Letters

to the editor

To the Editor:

Thank you very much for the copy of the July issue of *The Journal* in which our article on the Hartford Hospital fire was printed. We are delighted to have you publish this article and hope that it will reach many people in your state who in some way will be in a position to influence improved fire protection in hospitals.

Continued interest in the story of the Hartford Hospital fire has been encouraging in that many hospital administrators have taken a new look and a fresh approach in evaluating conditions in their own hospitals. The many requests we have had to speak to hospital groups on this fire and the many requests we have had from hospitals for fire protection information indicate that the lessons learned from this tragic fire may help to save many lives in other hospitals and nursing homes.

Again, thank you for publishing our story and if we may be of further service to you, please do not hesitate to call upon us.

Yours sincerely,

Ernest E. Juillerat
Fire Record Department
Assistant Editor
National Fire Protection Association

To the Editor:

The surgeon general of the Public Health Service, upon the recommendation of the advisory committee on influenza, has urged early fall vaccination of the susceptible population against influenza. As in previous years, the susceptible population includes the aged, the chronically ill, and pregnant women. This year the susceptible population has been expanded to include those over 45 years of age.

While accurate predictions of influenza occurrence are difficult, the committee has expressed the opinion that recent and past patterns of influenza A2 (Asian strain) indicate that this strain, of influenza is due in the United States next fall and winter. The committee further said that outbreaks of influenza B will probably be infrequent this year.

Sincerely yours,

C. A. Smith
Assistant Surgeon General
Chief, Communicable Disease Center
Atlanta, Georgia ◄

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Medicine At Law

DECISIONS AND OPINIONS

Highlights of recent court actions pertaining to health and medicine from *The Citation* prepared by the Law Division of AMA.

Visitor to State Hospital Recovers no Damages for Fall Injury—A damage suit by a visitor who was injured by a fall as she was entering the reception building of a state hospital was dismissed. The trial court said that no adequate cause of action was stated.

The visitor, accompanied by her husband, entered the reception building of the hospital. As she stepped onto a rubber mat in the reception hall, she fell and struck her head against a wall and her knees against the floor. She had pain in her head, neck, shoulders, chest and knees and remained in bed for approximately three weeks. Her medical expenses were $25.00 for physicians and $20.00 for x-rays.

The court said that the physical condition of the reception hall was not one of inherent danger, and that there was no proof that reasonable care was not exercised to prevent injury to visitors. There was no proof that the mat was defective, excessively worn, faulty or dangerous. The court also ruled that there was no proof of notice to the hospital of any defect a sufficient time in advance to permit correction.—*Krush v. State*, 222 N.Y.S. 2d 937 (N.Y., Dec. 28, 1961).

Common Knowledge Doctrine Rejected in Surgical Mishap—Despite a verdict against operating surgeons in a damage suit for injuries occurring during abdominal surgery, a judgment in their favor was properly granted, the Michigan Supreme Court ruled. A theory of liability under the "common knowledge" doctrine was flatly rejected.

In an operation for the lysis of bowel adhesions, the surgeons encountered a large mass of endometriosis. When a sample of this tissue was taken for laboratory analysis for malignancy, profuse bleeding developed. They put stitches deep into the endometriosis to stop the bleeding. It later developed that a suture became involved with one of the patient's ureters, with the result that there was leakage of urine which formed a cyst. Further surgery was required to correct this condition.

The appellate court held that the jury could not find negligence on the part of the surgeons since there was no medical testimony that their handling of the emergency was not in accord with the standard and usual practice of skilled doctors in the community. On the basis of evidence that the ureter was not the subject matter of the operation and that involvement of the ureter was not intended, it was contended that it would be within the common knowledge of laymen that the involvement of the ureter was negligent. The court, however, said that the question was not that simple. The question was whether, in the light of all the circumstances, the surgeons acted in accordance with good medical practice. "Common knowledge and the experience of ordinary laymen do not equip them to give the answer without the aid of expert medical testimony," the court ruled.

Lince v. Monson, 108 N.W. 2d 845 (Mich., April 26, 1961).

Physician Must Stand Trial for Negligence in Post-Operative Treatment—The

Continued



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> Kestler reports in controlled study: *Average time for restoring patients to full activity: with Soma, 11.5 days; without Soma, 41 days.* (*J.A.M.A. Vol. 172, No. 18, April 30, 1960.*)

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MEDICINE AT LAW

Continued

Kansas Supreme Court ordered a new trial in an action in which a urologist was charged with the responsibility for the negligence of a resident physician in carrying out the urologist's post-operative instructions.

The plaintiff had been referred to the defendant surgeon by her own physician for surgery for removal of a kidney stone. She entered the University of Kansas Medical Center as a private patient of the defendant. After removal of the stone, a 10-inch tube was inserted in the opening to drain the area. About two inches of the tube extended beyond the skin surface. The defendant issued instructions to the resident physician that the tube was to be removed on the tenth day of her hospitalization. On the tenth day, the resident clipped the protruding portion of the tube but did not remove the rest of it.

She was discharged from the hospital. The incision continued to drain for 15 days after the operation. While at home, she was in pain and unable to do housework. Six weeks after the operation, she went to her family physician. He found the tube and removed it.

The defendant claimed that he should not be held liable inasmuch as he did not actually participate in the post-operative treatment. The court, however, held that under the circumstances of the case, a private physician should follow through on his instructions. He had a duty to check to make sure the tube was properly removed, the court said.

Capps v. Valk, 369 P. 2d 238 (Kan., March 3, 1962).

Doctor and Hospital Must Stand Trial for Negligence in Death of Patient—A suit for $150,000 in damages against a doctor and a hospital was improperly dismissed. The complaint, arising out of the death of the patient, stated a good cause of action on one of two counts, the Iowa Supreme Court ruled.

The patient died the same day she was admitted to the hospital. The doctor was charged with negligence in not properly diagnosing the patient's sickness, in delaying a proper examination, and in failing to promptly institute proper treatment. The hospital was charged with negligence in failing to provide proper attendance and observation for the patient. The court said that dismissal of the complaint on the count based on negligence was improper, since the allegations, if proved, would warrant a verdict against the doctor and the hospital.

The second count, based on the doctrine of res ipsa loquitur, was properly dismissed, the court ruled. It held that the cause of the patient's death could not have been under the exclusive control of the doctor and the hospital since they had no control over the frailties of the patient's body. Likewise, it could not be said, as a matter of common experience, that the patient's death would not have occurred in the absence of negligence in view of the uncertainty as to the time of death of any person, the court ruled.

Lagerpusch v. Lindley, 115 N.W. 2d 207 (Iowa Sup. Ct., May 8, 1962). ◄

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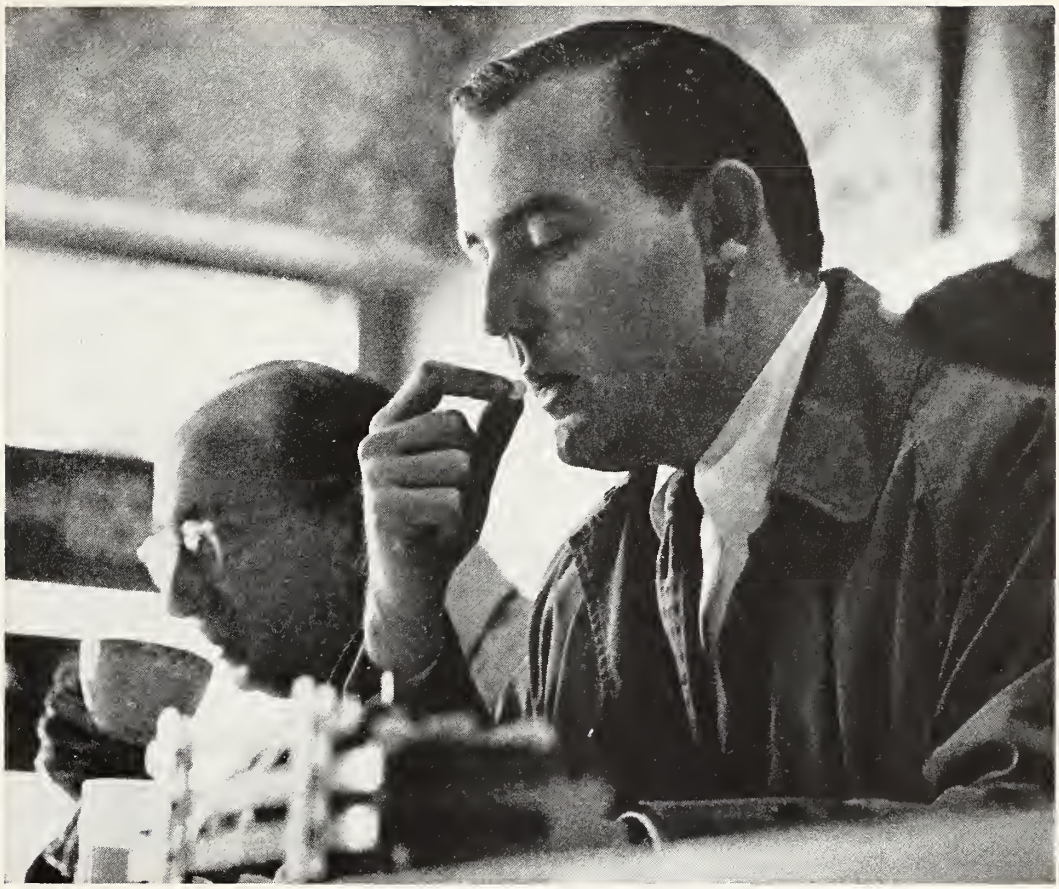
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*Schwartz, I. R.:
Current Therap. Res. 3:29, Feb., 1961.

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Patients Needed for Clinical Center Study on Reiter's Syndrome

The cooperation of physicians is earnestly solicited in the referral of patients for a study of Reiter's syndrome conducted by the National Institute of Arthritis and Metabolic Diseases in the Clinical Center of the National Institutes of Health, Bethesda, Maryland. Renewed efforts are being made to recover and identify the causative agent of Reiter's syndrome.

Reiter's syndrome is characterized by a triad of arthritis, urethritis and conjunctivitis. Cases lacking conjunctivitis would still qualify for this study. The presence of gonococcus and urethral discharge would not preclude a case from this study, provided this organism is not present in the synovial fluid.

The appearance of cutaneous manifestations (balanitis, keratodermia blennorrhagica, maculopapular eruption on penis, hard papules on soles) help clinch the diagnosis. Reiter's syndrome lasts for an average of six weeks and recurs in about 50% of the cases. Most desirable are cases within the first two weeks of onset.

Accepted patients will be studied for several weeks. Upon completion of their study, patients will be returned to the care of their referring physician who will receive a complete narrative summary.

Physicians who wish to have patients considered for this study may write or telephone: Joseph J. Bunim, M.D., Clinical Director, National Institute of Arthritis and Metabolic Diseases, Bethesda 14, Md.

Industrial Health Problems Booklet Available To Physicians

Industrial health problems are discussed in a booklet recently published by the American College of Physicians. Drs. Irvine H. Page, William C. Menninger, Wesley W. Spink, Lemuel C. McGee and Howard A. Rusk present succinct discussions on cardiovascular disease, mental illness, infectious diseases, physical fitness and rehabilitation. Complimentary copies may be obtained by writing the college at 4200 Pine St., Philadelphia 4.

New Community Medical Center Dedicated at Holland, Indiana

Dr. Jack Dean Bland, a 1961 graduate of the I. U. School of Medicine, has been named as physician at the newly dedicated Community Medical Center, Holland, Ind.

The idea of the medical center was first conceived by the Holland Kiwanis Club. They worked with the Sears-Roebuck Foundation and participated in the foundation's Community Medical Assistance program.

Lieutenant Governor Richard O. Ristine gave the principal address. Dr. John Paris also spoke at the dedication July 29.

Dr. Walter Portteus is chairman of the Medical Advisory Board of the Sears-Roebuck Foundation.

Dr. Morris C. Thomas, a member of the 1930 graduating class of I.U. School of Medicine, who was a staff physician at Sunnyside Sanitarium for several years prior to 1940, has been assigned as director of the Syracuse, N. Y. VA hospital. Since serving in the Army during World War II, Dr. Thomas has served with the VA at Dayton, Ohio, Waukesha, Wisconsin and Madison,

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Continued

Wisconsin, and has been director of the Dearborn, Michigan VA hospital since July, 1959.

Nation's Oldest Essay Contest Announced; Two Topics Listed

The trustees of America's oldest medical essay competition—the Caleb Fiske prize of the Rhode Island Medical Society—have announced two subjects for this year's dissertation. The contest is open to any doctor of medicine in the nation, for which a cash prize of $500 will be awarded.

The subjects chosen are "Etiological Factors in the Development of Congenital Anomalies," and "Progress in the Relief of Hearing Defects."

An entry on either subject must be typewritten, double-spaced, and should not exceed 10,000 words. Essays must be submitted by Dec. 11, 1962, to the Secretary, Fiske Fund, Rhode Island Medical Society, 106 Francis St., Providence 3, Rhode Island.

Three New Medical Films Available To Physicians

Ayerst Laboratories, 685 Third Avenue, New York 17, announces the availability of three new medical motion picture films on the subject of estrogen therapy. "Atherosclerosis and the Role of Estrogens," "Hemostasis and the Effect of Estrogens" and "The Menopause and the Role of Estrogens" are the titles. Each film is 16 mm. black and white, with sound, and runs for 30 minutes. Ayerst will loan them without charge to medical groups. Each film is based on a round table conference directed and supervised by the Excerpta Medica Foundation.

Local Physician Participates In "Medical Communications" Seminar

Dr. Raymond M. Rice, vice-president of Eli Lilly and Company, participated this summer in a three-day seminar on "Recent

Continued



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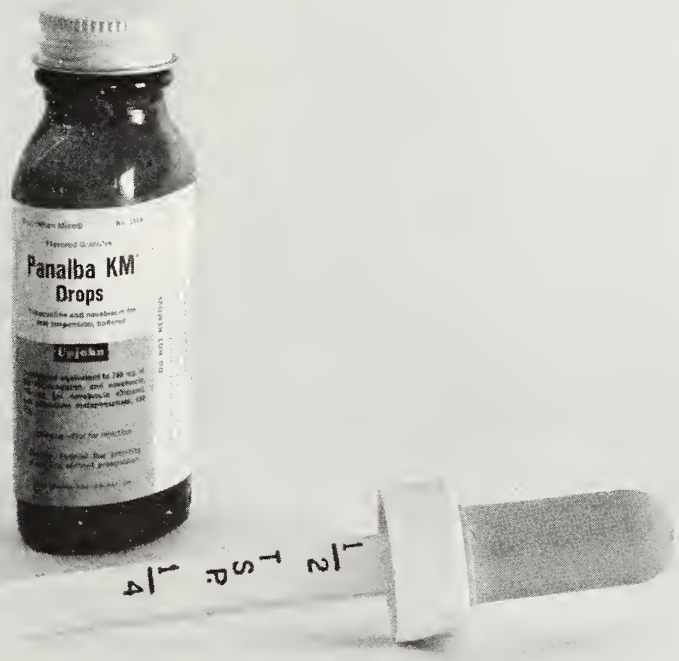


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NEWS NOTES

Continued

Advances in Medical Communication." The meeting was held in Aspen, Colorado, and was sponsored by the American Academy of General Practice and the Institute for Advancement of Medical Communication, in cooperation with the Aspen Institute for Humanistic Studies.

Dr. Rice was one of 27 men, all experts in the field of communication media, who considered specialized communications problems, including a study of means of closing the gap between medical knowledge and the application of it in every day practice.

Two physicians who have completed their residency in the Mayo Foundation in Rochester, Minnesota, have left there and will locate in Indiana.

Dr. Ara V. Doumanian, a fellow in surgery, will locate in East Chicago, Ind. Dr. Robert R. Shugart, a resident in orthopedic surgery, will locate in Ft. Wayne.

New, Enlarged Edition of Fire Protection Handbook Available

The new and enlarged 12th edition of the Fire Protection Handbook (NFPA), considered the most authoritative reference and textbook on the subject of fire, is now off the press.

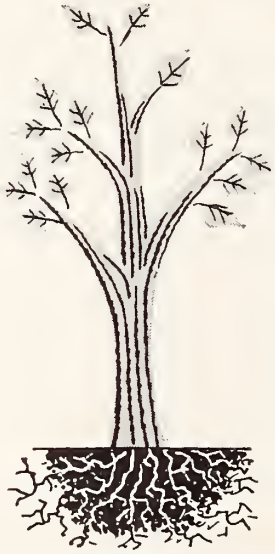
Completely revised, re-edited and restyled, the 2,216-page volume has been expanded by almost 700 pages from the previous edition to give the fullest possible treatment of the latest developments in fire protection and prevention. A practical guide for everyone concerned in any way with the protection of lives and property from fire, the volume contains 21 main sections comprehensively covering a tremendous variety of fire subjects.

The sectionalized arrangement of the handbook is designed to provide a progressive understanding of fire protection engineering and the aims and methods of promoting fire prevention.

Of special interest to hospital adminis-

Continued

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Flowers, trees, human beings, businesses — all of them have to put down roots before they begin to flourish. In the case of The White-Haines Optical Company, the roots started growing away back in 1901, and nurtured by a policy of painstaking craftsmanship and dedicated service to the ophthalmic profession, it is now the largest ophthalmic supply organization in the world. But largeness alone is no measure of worth. What is more important is that in the eight states in which White Haines maintains 36 branch offices, the Company name has become synonymous with dependability and high quality. We bend all of our efforts toward keeping it that way.

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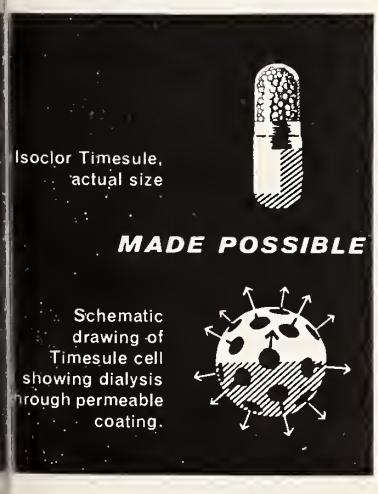
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Schematic drawing of Timesule cell showing dialysis through permeable coating.

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Continued

trators is the material on building construction in which the fire resistance ratings of all types of building materials and assemblies, the flame spread characteristics of interior finish materials, methods of providing adequate exits and areas of refuge are explained.

Other chapters which are invaluable sources of information to those concerned with safety to life cover safeguards for the storage and use of flammable anesthetic gases, fire detection and extinguishing systems, and organizing and training staff personnel in effective evacuation procedures.

The Fire Protection Handbook (NFPA) is available, at $17.50 a copy, from the National Fire Protection Association, 60 Batterymarch St., Boston 10, Mass.

All U. S. Medical Schools To Receive Pfizer Scholarships

Pfizer Laboratories, beginning with the 1962-63 school year, will award a $1,000 scholarship to each of the medical schools in the United States. The scholarship will be given to a student who will be chosen by the dean of each school or by a dean's committee, on any basis (academic record, financial need, etc.) which the school elects.

Two I.U. Medical Students Awarded Top Scholarships

Indiana University has been notified that two of its sophomore medical students, Randolph Jones, of Indianapolis, and Barrett Lee Coleman, of Gary, are among the eight Negro students awarded 1962-63 scholarships by National Medical Fellowships of Chicago.

The scholarships valued at $750 to $1,250 are designed to ease the shortage of Negro physicians and are supported by a grant from the Robert R. McCormick Foundation established by bequest of the late editor and publisher of the Chicago Tribune.

Cantinued



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NEWS NOTES

Continued

Current AMA Film Catalog Now Available To Physicians

The 1962 edition of the AMA Medical Health Film Library catalog is now available for distribution by the Medical Motion Pictures and Television Section of the Department of Scientific Assembly. This expanded catalog contains information about 173 films for professional audiences and 82 films to be used by physicians in addressing lay groups such as PTA, church organizations, service clubs, etc. A description of the content of each film, running time, service charges, and instructions for ordering are included in this catalog.

The services of the AMA film library are available to physicians, medical societies, hospitals, medical schools and other medical groups. Copies may be obtained, without charge, by addressing your request to the American Medical Association, Medical Motion Pictures and Television Section, Department of Scientific Assembly, 535 North Dearborn St., Chicago 10, Ill.

Atomic Energy Commission Licenses Purdue Atomic Reactor

The Atomic Energy Commission is licensing an atomic reactor recently constructed by Purdue University for research purposes and for student training. The reactor is a one kilowatt (thermal) pool-type, built by Lockheed Aircraft Corporation, and is located in the Electrical Engineering Building.

Dr. Margaret T. Owen, who has been a practicing physician in Bloomington for 19 years, has become a university physician on the staff of the Indiana University Student Health Service.

Dr. Owen was associated in practice for many years with her late husband, Dr. Abraham Owen. Prior to coming to Bloomington she practiced for a year in Williamsport and for four years in Attica.

She was graduated from I. U. in 1922 and from the University's School of Medicine in 1926. ◄



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. . . Admission by Medical Referral—referring physician has courtesy staff privileges, receives interim progress reports, and at discharge of his patient, a summary with recommendations for continued treatment. Out patient therapy is encouraged.

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Problems of Alcoholism Course Offered by I. U. in October

The Indiana Division on Alcoholism, in cooperation with the Indianapolis I. U. downtown campus and the School of Health, Physical Education and Recreation of Indiana University, is offering an evening course on Problems of Alcoholism and Alcohol Education, starting Tuesday, October 2.

The instruction will be part of Seminar in Health, Course H-617, and will be offered from 7:00 to 9:00 for eight consecutive Tuesdays ending November 20, in the Medical Science Building, Indiana University Medical School, West Michigan Street. Scholastic credit of one hour is available, tuition to be $18 for those who wish credit and $10 for those who do not. Participants will register on Tuesday, Oct. 2, starting at 6:30 p.m. in Rm. 414 of the Medical Science Bldg.

Planned especially for teachers, social and welfare workers, nurses, medical personnel, industrial and community leaders, clergymen and others interested in alcoholism, this project concerns one of the nation's most serious health problems. It would include lectures and discussions of physiology of alcohol; sociological, medical and psychiatric aspects of alcoholism; theological and legal problems and educational principles, presented by outstanding persons in the field.

Interested persons should contact Dean L. Barnhart at the division office, Bahr Treatment Building, 3000 West Washington St., or phone ME 9-5304.

"The Information Explosion" Is Topic of Writers' Meeting

"The Information Explosion—Its Challenge and Problems" will be the theme of the 19th annual meeting of the American Medical Writers Association at the Sheraton Park Hotel in Washington, D. C., October 12-13, 1962. The first day will be devoted to what medical journal editors, authors, educators, pharmaceutical companies, and medical writers can do to meet the challenge of the flood of new medical information.

On the second day, the meeting will consider the promise of recent advances in information storage and retrieval, in utilization of the "newer" communication media (films, radio, television, recordings, and programmed instruction), and in professionalism among medical communication personnel. For details and registration forms contact John Sargeant, chairman of the local arrangements committee, Medical and Chirurgical Faculty of Maryland, 1211 Cathedral St., Baltimore 1, Md.

MEMBERS OF ISMA INVITED TO INTERPROFESSIONAL CONCLAVE

The Midwest Interprofessional Conference will be held at Iowa State University, Ames, Iowa on September 17 and 18. This is a conference formed several years ago to aid members of various professions to keep abreast of research on diseases common to animals and man. Papers will be presented on leukemia, toxoplasmosis, salmonellosis, trichinosis, and aging and vascular change. Members of ISMA are invited to attend.

Two Indianapolis Physicians Participate in Nasal Course

An introductory course in "Expanded Surgery of the Nasal Septum and Closely Related Structures" will be presented at the Loma Linda University School of Medicine in Los Angeles on October 29 to November 1, immediately prior to the eighth annual meeting of the American Rhinologic Society on November 1 and 2. Drs. Walter J. Aagesen of Anderson and Carl B. Sputh and Lewis E. Morrison of Indianapolis will be instructors for the course.

Mississippi Valley Thoracic Society to Meet Here October 12

The 1962 Mississippi Valley Thoracic Society will meet Friday, October 12 at the Claypool Hotel, Indianapolis, in conjunction with the Mississippi Valley conference on tuberculosis. ◄

113th
Annual Convention

INDIANA STATE MEDICAL ASSOCIATION

October 7, 8, 9 and 10, 1962
All Time—Eastern Standard Time
French Lick—Sheraton Hotel
French Lick, Indiana

Complete Program and Annual Reports on Following Pages

September 1962 1393

Official Call to the House of Delegates

The next annual session of the Indiana State Medical Association will be held at the French Lick-Sheraton Hotel, French Lick, Indiana, October 7, 8, 9 and 10, 1962.

The House of Delegates will be constituted as follows: Marion County, 22 delegates; Lake County, nine delegates; Allen, St. Joseph, Vanderburgh County Societies, each five delegates; Delaware-Blackford, three delegates; Bartholomew-Brown, Daviess-Martin, Dearborn-Ohio, Elkhart, Fayette-Franklin, Fountain-Warren, Harrison-Crawford, Jackson-Jennings, Jasper-Newton, Jefferson-Switzerland, LaPorte, Madison, Owen-Monroe, Parke-Vermillion, Tippecanoe, Vigo and Wayne-Union County Societies, each two delegates; the other 57 county societies, each one delegate; 13 councilors and the ex-presidents, namely George R. Daniels, F. S. Crockett, R. L. Sensenich, Herman M. Baker, Karl R. Ruddell, M. A. Austin, Augustus P. Hauss, Alfred Ellison, Paul D. Crimm, William Harry Howard, Walter L. Portteus, Walter U. Kennedy, Elton R. Clarke, M. C. Topping, Kenneth L. Olson, Earl W. Mericle, and Guy A. Owsley, and ex-officio, the president, president-elect, executive secretary and the treasurer of the association, and the delegates to the American Medical Association, all without power to vote, except in the case of a tie vote, when the president shall cast the deciding vote.

Blank credentials have been sent by the secretary to each county society, and the properly executed credentials should be mailed to the Indiana State Medical Association, 3935 N. Meridian Street, Indianapolis 8, Indiana, or brought to the session. No delegate will be seated unless wearing the official badge.

The House of Delegates will convene promptly at 6:00 p.m., Sunday October 7, 1962, in the West Dining Room, French Lick-Sheraton Hotel, and again at 1:00 p.m., Wednesday, October 10, 1962, in the West Dining Room, French Lick-Sheraton Hotel.

The order of business will be as follows:

1. Call to order by the president.
2. Roll call and seating of qualified delegates.
3. Tribute to members of House who have died since the 1961 session.
4. Reading of the minutes of previous meetings.
5. Introduction of guests.
6. Appointment of Reference Committees and assignment of meeting rooms.
7. Unfinished business.
8. Address of president-elect.
9. Report of President of the Woman's Auxiliary.
10. Report of Indiana Chapter Student AMA.
11. Report by president of Blue Shield.
12. Report of executive secretary.
13. Report of treasurer.
14. Report of the chairman of the Council.
15. Reports of councilors.
16. Report of *Journal* Editor.
17. Reports of committees and commissions:

    COMMITTEES:

    (1) Executive
    (2) Grievance
    (3) Student Loan
    (4) Medical-Legal Review

    COMMISSIONS:

    (1) Convention Arrangements
    (2) Constitution and Bylaws
    (3) Legislation
    (4) Public Information
    (5) Governmental Medical Services
    (6) Public Health
    (7) Voluntary Health Agencies
    (8) Medical Economics and Insurance
    (9) Inter-Professional Relations
    (10) Medical Education and Licensure
    (11) Special Activities
    (12) Aging
18. New Business.
    (1) Resolutions from the floor.

The election of officers will be the first order of business at the second meeting of the House of Delegates. In addition to the regular officers, the terms of the following officers expire December 31, 1962, and their successors must be elected at the session: Delegates to the American Medical Association to succeed Harold C. Ochsner, M.D., Indianapolis; E. S. Jones, M.D., Hammond, and Francis L. Land, M.D., Fort Wayne; and alternates, James H. Gosman, M.D., Indianapolis; Robert M. Brown, M.D., Marion, and George W. Willison, M.D., Evansville.

Delegates from the First, Fourth, Seventh, Tenth, and Thirteenth districts are reminded that the terms of their councilors will expire October 10, 1962, and the new councilors should be elected to succeed the following:

First District: William B. Challman, Mt. Vernon
Fourth District: Joseph M. Black, Seymour
Seventh District: Ralph V. Everly, Indianapolis
Tenth District: Ralph C. Eades, Valparaiso
Thirteenth District: Burton E. Kintner, Elkhart

Some of these elections already may have been held, but they should be reported to the House of Delegates at this session for confirmation.

JAMES A. WAGGENER, *Executive Secretary*

HOUSE OF DELEGATES

Indiana State Medical Association

French Lick—October 7, 8, 9 and 10, 1962

County and Delegates	Alternates
ADAMS	
James Burk, 115 N. Third Street, Decatur	Howard Luginbill, Berne
ALLEN	
Robert E. Sullivan, 2424 Fairfield Avenue, Fort Wayne	J. C. Graham, Fort Wayne
Eugene F. Senseny, 2902 Fairfield Avenue, Fort Wayne	J. R. Ball, Fort Wayne
Franklin Bryan, 512 Medical Center Bldg., Fort Wayne	W. L. Bridges, Fort Wayne
Frederic L. Schoen, 902 Wayne Street, Fort Wayne	A. J. Haley, Fort Wayne
E. D. Hamilton, 234 Medical Center Bldg., Fort Wayne	V. C. Moeller, Fort Wayne
BARTHOLOMEW-BROWN	
David Adler, Bartholomew County Hospital, Columbus	Henry McCullough, Columbus
Kenneth Schneider, Nashville	Robert Seibel, Nashville
BENTON	
Donald McKinney, Otterbein	
BOONE	
Clarence G. Kern, 1720 North Lebanon, Lebanon	Hardin B. Grigsby, Lebanon
CARROLL	
T. Neal Petry, 111 E. Franklin Street, Delphi	Charles L. Wise, Camden
CASS	
Earl W. Bailey, 212 Fifth Street, Logansport	Donald K. Winter, Logansport
CLARK	
Eli Goodman, 807 High Street, Charlestown	George M. Wolverton, Clarksville
CLAY	
Charles E. Moon, Center Point	
CLINTON	
Robert A. Hedgcock, 259 E. Clinton Street, Frankfort	
DAVIESS-MARTIN	
Robert H. Rang, 1312 Bedford Road, Washington	C. Philip Fox, Washington
E. B. Lett, 408 East Main Street, Loogootee	Robert Chattin, Loogootee

County and Delegates	Alternates
DEARBORN-OHIO	
Leslie M. Baker, 501 Fourth Street, Lawrenceburg	Lowell Hunter, Lawrenceburg
Gordon S. Fessler, Rising Sun	George G. Morrison, Lawrenceburg
DECATUR	
William R. Shaffer, 214 N. Franklin Street, Greensburg	
DE KALB	
Evered E. Rogers, 212 West Sixth Street, Auburn	Charles I. Weirich, Butler
DELAWARE-BLACKFORD	
Thomas M. Brown, 412 White River Blvd., Muncie	Donald Taylor, Muncie
Glynn A. Rivers, 625 West Adams, Muncie	Charles Alvey, Muncie
Ed Wierzalis, Rural Loan Bldg., Hartford City	Dean Jackson, Hartford City
DUBOIS	
John H. Barrow, Dale	
ELKHART	
Frederick W. Bigler, 314 S. Fifth Street, Elkhart	Carlos Mendez, Elkhart
George R. Bloom, 506 S. Second Street, Elkhart	John P. Turner, Goshen
FAYETTE-FRANKLIN	
G. T. Watterson, 1910 Virginia Avenue, Connersville	Wm. F. Kerrigan, Connersville
H N. Smith, 812 Main Street, Brookville	Perry F. Seal, Brookville
FLOYD	
Donald R. LaFollette, 1000 E. Spring Street, New Albany	Nelson A. Wolfe, New Albany
FOUNTAIN-WARREN	
Peter R. Petrich, 401 S. Perry Street, Attica	Lowell R. Stephens, Covington
James W. Crain, Williamsport	Carl A. Nelson, West Lebanon
FULTON	
Dean K. Stinson, 816 Main Street, Rochester	K. K. Kraning, Kewanna
GIBSON	
Virgil McCarty, 113 S. Main Street, Princeton	R. S. McElroy, Princeton

County and Delegates	Alternates
GRANT	
Robert M. Brown, 522 Marion National Bank Bldg., Marion	H. Allison Miller, Marion
GREENE	
Jerome A. Graf, Bloomfield	Sam Rotman, Jasonville
HAMILTON	
John G. Haywood, 120 N. 11th Street, Noblesville	Alton Ridgway, Lapel
HANCOCK	
Wayne H. Endicott, 10 Boyd Avenue, Greenfield	John H. Smith, Greenfield
HARRISON-CRAWFORD	
William E. Amy, 120 S. Capitol, Corydon	Samuel Martin, Corydon
Jesse Benz, Marengo	O. R. Lynch, Marengo
HENDRICKS	
O. T. Scamahorn, Pittsboro	Malcolm Scamahorn, Pittsboro
HENRY	
William S. Robertson, Spiceland	John E. Fisher, New Castle
HOWARD	
Garvey Bowers, 210 W. Mulberry Street, Kokomo	Thomas Conley, Kokomo
HUNTINGTON	
Richard W Wagner, 1355 Guilford, Huntington	Carl S. Ray, Warren
JACKSON-JENNINGS	
Harry Baxter, 326 N. Walnut Street, Seymour	William Scharbrough, Ewing
F. D. Ellis, 241 Norris Avenue, North Vernon	W. A. Johnson, North Vernon
JASPER-NEWTON	
Ernest R. Beaver, Rensselaer	Richard Schantz, Remington
Arthur Schoonveld, Brook	John Parker, Goodland
JAY	
William Cripe 302 N. Meridian Portland	Forrest E. Keeling, Portland
JEFFERSON-SWITZERLAND	
Francis Prenatt, Madison State Hospital, Madison	W. K. Sloan, Madison
Noel Graves, Vevay	Antha Hamilton, Vevay
JOHNSON	
Joseph F. Ferrara, 1107 N. Main Bldg., Franklin	Charles A. Jones, Franklin
KNOX	
Virgil C. McMahan, 609 Dubois, Vincennes	
KOSCIUSKO	
William Cron, 215 S. High Street, Warsaw	John Arford, Warsaw
LA GRANGE	
Jerry A. Miller, LaGrange	M. Reed Taylor, LaGrange
LAKE	
M. B. Gevirtz, 6850 Hohman Avenue, Hammond	J. B. Burcham, Gary
Michael Shellhouse, 3811 Washington Street, Gary	F. F. Premuda, Hammond
Thomas C. Tyrrell, 800 State Line Avenue, Calumet City, Ill.	D. T. Ramker, Hammond
Philip J. Rosenbloom, 571 Lincoln, Gary	W. A. Nelson, Gary
J. B Nicosia, 1802 Columbus Drive, East Chicago	J. J. Reed, Hobart
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Ray Elledge, 6415 Forest Avenue, Hammond	
R. N. Bills, 504 Broadway, Gary	
J. W. Mather, 2250 Ripley Street, East Gary	
LA PORTE	
G. O. Larson, LaPorte	Gene R. Hay, Michigan City
T. D. Armstrong, 120 W. 9th Street, Michigan City	
LAWRENCE	
Howard T. Hammel, Bedford	J. P. Scherschel, Bedford
MADISON	
P. T. Lamey, 423 Citizens Bank Bldg., Anderson	Seth Ellis, Anderson
J. L. Larmore, 612 Anderson Bank Bldg., Anderson	Walter Laudeman, Elwood
MARION (All addresses Indianapolis)	
Richard H. Appel, 320 Hume Mansur Bldg. (4)	Harry D. Aldrich
Howard W. Beaver, 8 E. Troy (3)	Warren E. Coggeshall
John O. Butler, 234 E. Southern Ave. (25)	A. D. Dennison, Jr.
Irvin Caplin, 3120 N. Meridian (8)	Donald R. Hampshire
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Harold C. Thornton, 301 E. 38th Street (5)	J. Wm. Wright, Jr.
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William N. Ellis, 1402 N. Olney (1)	Paul D. Littlefield
Robert A. Garrett, 1100 W. Michigan (7)	Loren H. Martin
James H. Gosman, 2901 N. Meridian (8)	B. L. Martz

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Indiana State Medical Association

1961-62



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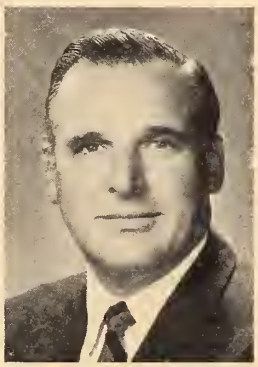
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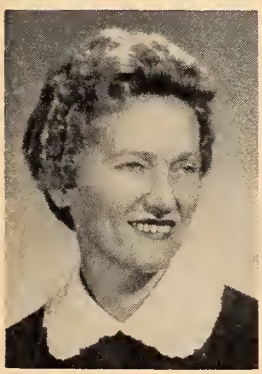
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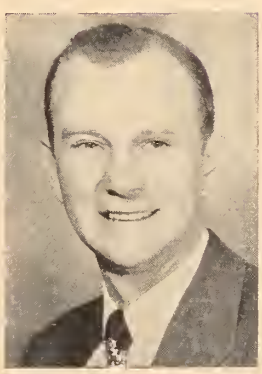
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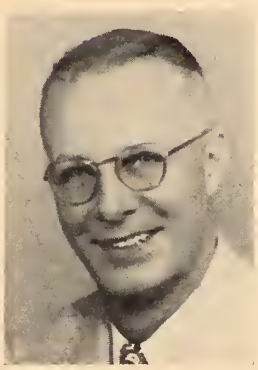


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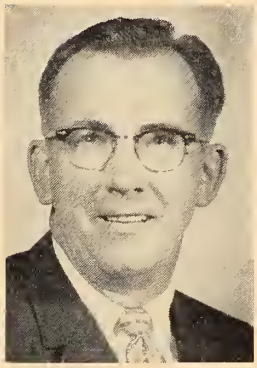
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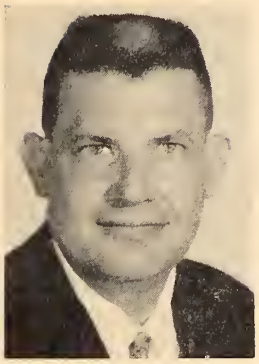
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Schedule of Events

113th Annual Convention

Indiana State Medical Association

French Lick-Sheraton Hotel

French Lick, Indiana

October 7, 8, 9 and 10, 1962

All Events on Eastern Standard Time

(The scientific program of the 113th annual convention of the Indiana State Medical Association is acceptable for 11 hours of Category I credit by the American Academy of General Practice.)

Sunday, October 7, 1962

12 noon — Executive Committee meeting, Hoosier Jr. Room.

3:00 p.m. — Council meeting, Mural Room.

6:00 p.m. — Meeting of House of Delegates, west dining room. (Dinner meeting.)

Monday Morning, October 8, 1962

7:30 a.m. — Council breakfast, Mural Room.

8:00 a.m. — Annual golf tournament. Eighteen holes, low gross, low net and blind bogie medal play. French Lick Hill Course.

8:30 a.m. — Registration begins, mezzanine floor.

8:30 a.m. — Opening of technical exhibit, lobby, main floor, and mezzanine floor.

8:30 a.m. — Opening of scientific exhibit, foyer, Convention Hall.

9:00 a.m. — Reference Committees meet. Meeting rooms, ground floor, Convention Hall.

11:00 a.m. — Editorial Board meeting, Room 107. Luncheon at 12.

11:00 a.m. — Annual trap-skeet shoot, French Lick Trap and Skeet Club.

11:00 a.m. to 1:00 p.m. — Time allowed to view technical and scientific exhibits.

Monday Noon, October 8, 1962

12 noon — Luncheon meeting of Past Presidents of the Indiana State Medical Association, TV Room.

12 noon — SECTION ON INTERNAL MEDICINE luncheon meeting, Roost Room.

12 noon — SECTION ON NERVOUS AND MENTAL DISEASES luncheon-business meeting, Mural Room.

12 noon — Luncheon meeting, SECTION ON OPHTHALMOLOGY AND OTOLARYNGOLOGY, members and their wives, Hoosier Jr. Room.

Monday Afternoon, October 8, 1962

1:00 to 2:30 p.m. — *Section meetings.* Election of Section Officers for 1963.

SECTION ON SURGERY, Tag Room.

SECTION ON ANESTHESIOLOGY, Room 227.

SECTION ON GENERAL PRACTICE, Terrace Room.

SECTION ON OBSTETRICS AND GYNECOLOGY, Rooms 602 and 604.

SECTION ON PUBLIC HEALTH AND PREVENTIVE MEDICINE, and Indiana Health Officers Association, North Convention Hall.



KENNETH G. KOHLSTAEDT, M.D.
Indianapolis
Professor of Medicine, I.U. School of Medicine; Chairman of Council of Circulation, American Heart Association; Governor of Indiana for American College of Physicians; M.D. from Indiana Univ. School of Medicine, 1932.

2:30 to
3:00 p.m. Time allowed to view technical and scientific exhibits.

GENERAL MEETING

(Convention Hall)

Call to order by Harry R. Stimson, M.D., Gary, president, Indiana State Medical Association.

3:00 to
5:00 p.m. Panel discussion: *Exertion, Exposure, Compensation, Re-employment.*

Moderator: KENNETH G. KOHLSTAEDT, M.D., Indianapolis.

BENJAMIN F. SMALL, Associate Dean, I. U. School of Law, Indianapolis.

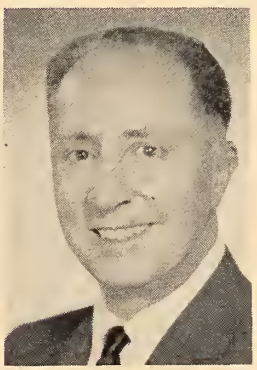
JAMES V. DONADIO, Indianapolis.

HOWARD B. SPRAGUE, M.D., Brookline, Massachusetts.

ROBERT B. CHEVALIER, M.D., Indianapolis.



BEN F. SMALL, J.D.
Indianapolis
Associate Dean, Indiana University School of Law; J.D. from Indiana University School of Law, 1943.



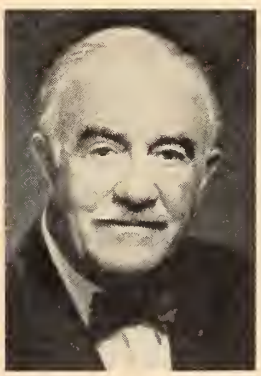
JAMES V. DONADIO, LL.B.
Indianapolis
Chairman of Disciplinary Commission of Supreme Court of Indiana; Guest lecturer on Medical-Legal subjects Indiana Univ. Medical School; Past Chairman, Medical-Legal Section, Ind. State Bar Assn.; LL.B. from Indiana University School of Law, 1927.

Monday Evening, October 8, 1962

6:00 p.m. Supper, smoker and stag party, main dining room.
Presentation of sports trophies.

6:00 p.m. Council and Program Committee meeting of the Indiana Chapter of American College of Surgeons, Hoosier Jr. Room.

7:45 p.m. Entertainment by Woman's Auxiliary to the Fort Wayne Medical Society, for physicians, wives and guests, main dining room.



HOWARD B. SPRAGUE, M.D.
Brookline, Mass.
Former lecturer on medicine, Harvard Medical School; Consultant, Massachusetts General Hospital; Former member of National Advisory Heart Council, U.S. Public Health Service; M.D. from Harvard Medical School, 1922.



ROBERT B. CHEVALIER, M.D.
Indianapolis
Instructor in Medicine, I.U. School of Medicine; Consultant, Purdue Farm Cardiac Project; Research Assoc., Robert M. Moore Heart Clinic, Marion County General Hospital; M.D. from Medical College of Virginia, 1955.

Fireside Conferences
on
CARDIO-RESPIRATORY DISEASES

Monday, October 8, 1962, 8:45 P.M.

Terrace Room

This is the second year for this feature of the annual convention, sponsored by the Indiana State Medical Association and the Indiana Chapter of the American College of Chest Physicians for all physicians. The conferences are informal discussions with your colleagues, including nationally and locally-known physicians interested in the subject. Six major topics are presented and the physician may move from one table to another asking questions or commenting on the various problems of the subject at hand.

Honored Guest Participants

CHARLES K. PETTER, M.D., President-elect, American College of Chest Physicians, Waukegan, Illinois.

OTTO L. BETTAG, M.D., Medical Director, Du Page County Tuberculosis Sanatorium Board, Glen Ellyn, Illinois. Former Commissioner Health and Welfare, State of Illinois.

SPEAKERS



CHARLES K. PETTER, M.D.
Waukegan, Ill.
President-Elect American College of Chest Physicians; Superintendent and Medical Director of Lake County Tuberculosis Sanatorium; M.D. from Minnesota School of Medicine, 1928.



OTTO L. BETTAG, M.D.
Glen Ellyn, Ill.
Medical Director, DuPage County Tuberculosis Sanatorium Board; Executive Officer, Div. of Vocational Rehabilitation, State of Illinois; Former Director, Illinois Dept. of Public Welfare; M.D. from University of Iowa, 1932.

PROGRAM

1. *Compensable Cardio-Respiratory Diseases*
   Moderator: KENNETH G. KOHLSTAEDT, M.D., Indianapolis
   LOUIS W. SPOLYAR, M.D., Indianapolis
   ROBERT B. CHEVALIER, M.D., Indianapolis
   JAMES V. DONADIO, Indianapolis
   BENJAMIN F. SMALL, Associate Dean, Indiana University School of Law, Indianapolis
   HOWARD B. SPRAGUE, M.D., Brookline, Massachusetts.

2. *Treatment of Hypertension*
   Moderator: CHARLES FISCH, M.D., Indiapolis
   RICHARD P. GRIPE, M.D., Lafayette
   FRANCIS W. HARE, JR., M.D., Madison

3. *Pulmonary Function Work-Up*
   Moderator: OTTO L. BETTAG, M.D., Glen Ellyn, Illinois
   RALPH C. WILMORE, M.D., Indianapolis
   DAVID E. WHEELER, M.D., Indianapolis
   J. FRANK W. STEWART, M.D., Vincennes

4. *Early Cardiac Decompensation*
   Moderator: JACK L. EISAMAN, M.D., Bluffton
   EDWARD F. STEINMETZ, M.D., Indianapolis
   CHESTER A. STAYTON, JR., M.D., Indianapolis

5. *New Drugs in Pulmonary Disease*
   Moderator: CHARLES K. PETTER, M.D., Waukegan, Illinois
   RICHARD S. GRIFFITH, M.D., Indianapolis
   ALFONS LANDWEHR, M.D., Indianapolis

6. *Pulmonary Allergy*
   Moderator: BENNETT KRAFT, M.D., Indianapolis
   IRVIN CAPLIN, M.D., Indianapolis
   GEORGE F. PARKER, JR., M.D., Indianapolis

Tuesday Morning, October 9, 1962

7:30 a.m. Delegates Breakfast, Roost Room.

8:00 a.m. Council Breakfast, Mural Room.

8:30 a.m. Registration continues, mezzanine floor.

8:30 a.m. Technical exhibit, lobby, main floor, and mezzanine floor.

8:30 a.m. Scientific exhibit, foyer, Convention Hall.

GENERAL MEETING

(Convention Hall)

Harry R. Stimson, M.D., Gary, president, Indiana State Medical Association, chairman

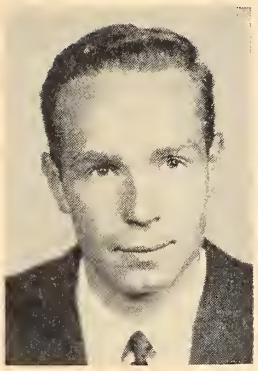
9:00 a.m. *Aerospace Medicine*
Introduction: STUART BONDURANT, M.D., Indianapolis

9:20 to 9:50 a.m. *Physiologic Effects of Acceleration*
JOSEPH V. MESSER, Capt., USAF (MC), Wright-Patterson AFB, Ohio

10:00 to 10:45 a.m. *Operational Problems in Space Medicine*
COL. GEORGE M. KNAUF, USAF (MC), Washington, D. C.

11:00 to 11:45 a.m. *Space Flight Ecology*
JOHN J. KONIKOFF, Missile and Space Vehicle Department, The General Electric Company, Philadelphia
Plus Traveling Road Show on *Techniques and Equipment*

11:45 a.m. Time allowed to view technical and scientific exhibits



STUART BONDURANT, M.D.
Indianapolis
Associate Professor of Medicine, I.U. School of Medicine; Associate Director, I.U. Cardiovascular Research Center; Member, Inst. of Aerospace Sciences, Biomedical Technology Panel; Consultant, National Institutes of Health; M.D. from Duke Univ. School of Medicine, 1953.



JOSEPH V. MESSER, M.D.
Wright-Patterson AFB, Ohio
Specialist in internal medicine and cardiology, Biophysics Branch, Acceleration Section of U.S.A.F. Aerospace Medical Research Laboratories; M.D. from Harvard Medical School, 1956.



GEORGE M. KNAUF
Colonel, USAF, MC
Deputy Director, Aerospace Medicine, Office of Manned Space Flight, Headquarters, NASA, Washington, D. C.; M.D. from Hahnemann Medical College, Philadelphia, Pa., 1934.

Tuesday Noon, October 9, 1962

12 noon Luncheon for all surgeons, Terrace Room.
Informal discussions of trends in Indiana surgery.

12 noon Phi Rho Sigma luncheon, Mural Room.

12 noon Phi Chi luncheon, Hoosier Jr. Room.

12 noon Phi Beta Pi luncheon, Tag Room.

12 noon Nu Sigma Nu Alumni luncheon, Room 107.

12 noon Indiana Chapter of American College of Chest Physicians luncheon meeting, Roost Room.
Speakers: CHARLES K. PETTER, M.D., President-elect, American College of Chest Physicians, Waukegan, Illinois.
OTTO L. BETTAG, M.D., Regent, American College of Chest Physicians, Glen Ellyn, Illinois.

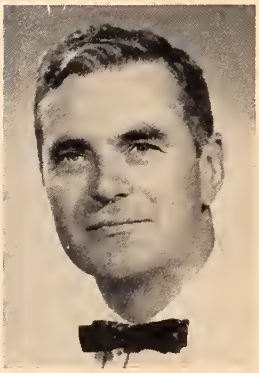
1:00 p.m. Flying Physicians Association, Indiana Chapter, meeting. TV Room. (Not a luncheon meeting).



JOHN J. KONIKOFF, B.S.
Philadelphia, Penn.
Assoc. Fellow, Institute of Aerospace Sciences; Sr. Member, American Rocket Society; Served as consultant on Food Reserves on Space Trips, Satellite Aeromedical Recovery Vehicle, Ground Surveillance System and Space Cabin programs; B.S. from Drexel Inst. of Technology in 1952.



J. STANLEY BATTERSBY, M.D.
Indianapolis
Professor of Surgery, Indiana University School of Medicine; Consultant, V.A. Hospital, Indianapolis; M.D. from Indiana University, 1939.



GEORGE H. A. CLOWES, JR., M.D.
Charleston, S. C.
Professor and chairman, Dept. of Surgery, Medical College of South Carolina; M.D. from Harvard Medical School, 1941.

Tuesday Afternoon, October 9, 1962

GENERAL MEETING
(Convention Hall)

Harry R. Stimson, M.D., Gary, president, Indiana State Medical Association, chairman

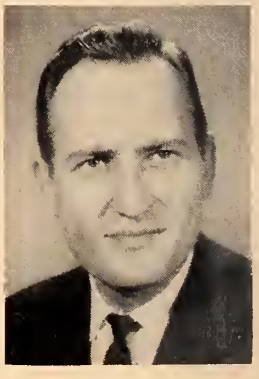
1:30 to
3:00 p.m. Panel discussion: *Pathological Condition of the Upper Gastro-Intestinal Tract*
Moderator: J. STANLEY BATTERSBY, M.D., Indianapolis
GEORGE H. A. CLOWES, JR., M.D., Charleston, S. C., surgeon
FRED M. HUNTER, M.D., New Orleans, gastroenterologist
ROBERT C. HORN, JR., M.D., Detroit, pathologist
JEROME F. WIOT, M.D., Cincinnati, radiologist

3:00 to
3:30 p.m. Time allowed to view technical and scientific exhibits

3:30 to
5:00 p.m. Symposium on TRAUMA
Moderator: PAUL MERRELL, M.D., Indianapolis



FRED MEAD HUNTER, M.D.
New Orleans, La.
Associate Professor of Medicine, Head of the Gastroenterology Section, Tulane University; Consultant, Charity Hospital of New Orleans, V.A. Hospital, New Orleans and Alexandria; M.D. from Tulane University, 1948.



JEROME F. WIOT, M.D.
Cincinnati, Ohio
Assistant Professor of Radiology, U. of Cincinnati; Assistant Director, Dept. of Radiology, Cincinnati General Hospital; Consultant, Cincinnati Veterans Admin. Hospital; M.D. from University of Cincinnati, 1953.



ROBERT C. HORN, JR., M.D.
Detroit, Mich.
Consultant Armed Forces Inst. of Pathology, U.S. Navy; Past Chairman, Section of Pathology and Physiology, AMA; Vice speaker of Assembly College of American Pathologists; M.D. from Yale, 1937.



PAUL MERRELL, M.D.
Indianapolis
Assistant Professor of Surgery, I.U. School of Medicine; Chairman of Subsection of Neurological Surgery, Marion County General Hospital; President, Indiana Neuropsychiatric Association; M.D. from Univ. of Cincinnati College of Medicine, 1930.

Resuscitation

CYRIL TAYLOR, M.D., Indianapolis

Athletic Injuries

FRANK W. TEAGUE, M.D., Indianapolis

Good Samaritans

JUDGE JAMES A. EMMERT, Shelbyville

Emergency Rooms

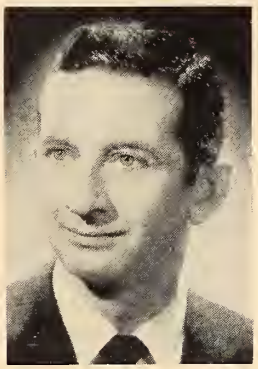
JOHN V. THOMPSON, M.D., Indianapolis

Transporting the Injured

CARL D. MARTZ, M.D., Indianapolis

5:15 p.m. Reception for members of Fifty-Year Club, Mural Room

Chairman: WILLIAM E. AMY, M.D., Corydon



CYRIL TAYLOR, M.D.
Indianapolis

Assistant Professor of Anesthesiology, Indiana University School of Medicine; Consultant, I.U. Medical Center and Veterans Admin. Hospital, Indianapolis; Secretary, Indiana Society of Anesthesiologists; M.D. from University of London, England, 1947.



JAMES A. EMMERT, LL.B.
Shelbyville, Ind.

Attorney; Twice elected Attorney General of Indiana; Served two terms on Indiana Supreme Court; LL.B. from Harvard Law School, 1923.

Tuesday Evening, October 9 ,1962

6:00 p.m. President's reception, formal gardens

7:00 p.m. President's dinner, main dining room

Presiding officer, HARRY R. STIMSON, M.D., President, Indiana State Medical Association

Invocation

Recognition of Fifty-Year Club members

Speaker: DONAL E. J. McNAMARA, Dean, New York Institute of Criminology, New York

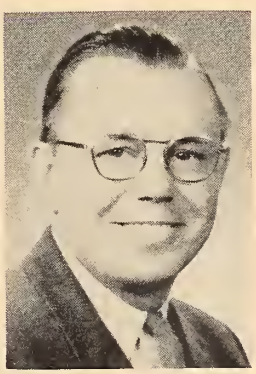
Presentation of plaque to HARRY R. STIMSON, M.D., Gary, President, 1962, by MAURICE E. GLOCK, M.D., Fort Wayne, President, 1963

Dancing



JOHN V. THOMPSON, M.D.
Indianapolis

Consultant in Thoracic and Cardiovascular Surgery at Community, St. Francis and Methodist Hospitals, Indianapolis; Governor, American College of Cardiology; Governor, American College of Chest Physicians; Founder of The International Bronchoesophagological Society; M.D. from U. of Illinois, 1938.



CARL D. MARTZ, M.D.
Indianapolis

Clinical Professor of Orthopedic Surgery, Indiana University School of Medicine; Consultant, Muscatatuck State School; President, Indiana Rehabilitation Association; M.D. from Indiana Univ. School of Medicine, 1940.

Wednesday Morning, October 10, 1962

8:00 a.m. Council Breakfast, Mural Room

8:00 to 10:00 a.m. Time allowed to view technical and scientific exhibits

SPEAKERS



JACKSON A. SMITH, M.D.
Chicago, Ill.
Associate Professor of Psychiatry, University of Chicago; Clinical Director, Illinois State Psychiatric Institute; M.D. from Univ. Oklahoma School of Medicine, 1943.

Wednesday Morning, October 10, 1962

8:30 a.m. Registration continues, mezzanine floor

8:30 a.m. Technical exhibit, lobby, main floor, and mezzanine floor

8:30 a.m. Scientific exhibit, foyer, Convention Hall

9:00 a.m. Organization meeting of 1962-63 commission and committee members of the Indiana State Medical Association, Roost and TV Rooms

GENERAL MEETING
(Convention Hall)

Harry R. Stimson, M.D., Gary, president, Indiana State Medical Association, chairman.

10:00 a.m. *Juvenile Delinquency*

DONAL E. J. McNAMARA, Dean, New York Institute of Criminology, New York

JACKSON A. SMITH, M.D., Clinical Director, Illinois State Psychiatric Institute, Chicago

Members and wives urged to attend.

Wednesday Noon, October 10, 1962

12 noon I. U. Class of 1927 luncheon meeting, ing, Hoosier Jr. Room

12 noon Joint luncheon meeting of SECTION ON RADIOLOGY and Indiana Roentgen Society, Terrace Room

Speaker: JEROME F. WIOT, M.D., Cincinnati

Subject: *Unusual Lesions of the G.I. Tract.*

Wednesday Afternoon, October 10, 1962

12:30 p.m. Final meeting of House of Delegates, West Dining Room (Luncheon meeting)

Meetings of Council and Executive Committee immediately following adjournment of House of Delegates

Convention Arrangements Committees

GENERAL CONVENTION ARRANGEMENTS: Virgil C. McMahan, Vincennes, chairman; Charles Fisch, Indianapolis, vice-chairman; Donald G. Mason, Angola, secretary; Ray H. Burnikel, Evansville; Irvin S. Sonne, New Albany; Robert Zink, Madison; Burton E. Scherb, Terre Haute; John Mader, Richmond; James M. Leffel, Indianapolis; Walter J. Aagesen, Anderson; Robert Harris, Noblesville; M. Shellhouse, Gary; Max Long, Marion; Bernard E. Edwards, South Bend; Ray Tharpe, Indianapolis.

GOLF: Joseph C. Lawrence, Evansville, chairman.

TRAP-SKEET SHOOT: Claude M. Donahue, Carmel, chairman.

FIFTY-YEAR CLUB RECEPTION: William E. Amy, M.D., Corydon, chairman.

WOMEN'S ENTERTAINMENT: Auxiliary to Knox County Medical Society. Mrs. Edward T. Edwards and Mrs. Virgil C. McMahan, co-chairmen.

Auxiliary Program

Mrs. Edward T. Edwards and Mrs. Virgil C. McMahan, Vincennes, co-chairmen.

Monday, October 8, 1962

8:30 a.m. Registration begins, mezzanine floor.

2:30 p.m. Executive Committee meeting, South Room.

6:00 p.m. Dinner in honor of past presidents of the Woman's Auxiliary to the Indiana State Medical Association, west dining room. Hostesses, Knox County Auxiliary members.
Mrs. Thomas W. Johnson, Indianapolis, president, presiding.

7:45 p.m. Entertainment in conjunction with Indiana State Medical Association, main dining room.

Tuesday, October 9, 1962

8:30 a.m. Registration continues, mezzanine floor.

8:30 a.m. Organizational Breakfast, west dining room.

9:00 a.m. *Aerospace Medicine*, Convention Hall. Women invited.

Tuesday, October 9, 1962

10:00 a.m. Board of Directors meeting, North Convention Hall. All doctors' wives invited.

2:00 p.m. Bridge and Canasta, Porch, French Lick-Sheraton Hotel.
Mrs. Joseph C. Lawrence, Evansville, chairman.

6:00 p.m. ISMA President's reception, formal gardens.

7:00 p.m. Annual dinner in conjunction with the Indiana State Medical Association, main dining room.

Dancing following dinner.

Wednesday, October 10, 1962

8:30 a.m. Registration continues, mezzanine floor.

8:30 a.m. Golf tournament, Flat Course.
Mrs. Ray H. Burnikel, Evansville, chairman.

10:00 a.m. *Juvenile Delinquency*, Convention Hall. Women invited.

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Reports of Officers

Executive Secretary

As your secretary prepares this report it seems last year's report was made only yesterday. Since the last meeting of the House of Delegates, the year has been one of the busiest for your headquarters staff. It has been only with the splendid cooperation of the staff that we have been able to accomplish the work assigned us.

The building program, the effort of education on the King-Anderson measure, the new welfare program, moving, and a busy year for the commissions and committees have all contributed to the duties of your headquarters office.

As you read the reports of the various commissions and committees, I am sure you will agree that much has been accomplished by your association during the year. Those of you who have had the opportunity to visit your new home, I am sure, can appreciate the great number of hours of work which have been contributed by your Building Committee, Executive Committee and Council to this project. It is a marvelous accomplishment, and a beautiful and functional place in which you have housed your association business and your staff. We hope all the members are as proud, as we are who serve you, in having such a pleasant home. We all join in expressing our sincere thanks.

Accelerated activity was brought about by the threat of socialized medicine again this year. It was a serious threat which required all to lend their efforts to completing a necessary educational program. It may interest you to know that as much time and effort, but much less money, was devoted to this program as was devoted to the campaign against the Wagner-Murray-Dingel bill back in 1949 and 1950.

Speakers bureaus again were organized, speakers kits were prepared, more than 6,000 personal letters were sent by your headquarters office to individuals and organizations soliciting their support. The component county medical societies and their auxiliaries, almost without exception, became very active and Indiana again is credited with leading the nation in results obtained. In the 1949-50 campaign, 226 organizations supported the position of the medical profession. In this campaign some 300 organizations lent their support. We have no knowledge how many letters, telegrams, or petitions were finally filed with the members of Congress.

So outstanding was the effort of your association, that again we were held up as a model for other states to follow in the means of setting up and conducting an educational program.

Your state has been further recognized in that the major part of an entire afternoon program during the AMA Institute which is to be held in Chicago August 30 and 31, is being devoted to the Indiana story. The officers of the association and your staff will participate in this presentation.

Your secretary was again honored by the presidents and officers of state medical associations by being re-elected the secretary-treasurer of their conference.

Without going into further detail, I believe with your review of the committee and commission reports you will have full information concerning the activities of your headquarters staff, as they are involved in all of these activities.

The entire staff joins me in thanking the membership for their many kindnesses, their helpful counsel and cooperation, and to the officers who have devoted untold hours in assisting the staff in their many responsibilities. It is a privilege to have the opportunity to serve you, and we hope that during the coming year we shall have the opportunity, often, to be of service to every member of this growing association.

JAMES A. WAGGENER, *Executive Secretary*

Treasurer

Following is an itemized statement of the securities in the Building Fund, General Fund and the Medical Defense Fund as of July 13, 1962.

	Face Value	Market Value
BUILDING FUND		
U. S. Savings Bonds and Note	$ 71,000.00	$ 69,917.00
	$ 71,000.00	$ 69,917.00
GENERAL FUND		
U. S. Savings Bonds	4,000.00	3,944.00
U. S. Treasury Bonds	72,000.00	63,968.50
	$ 76,000.00	$ 67,912.50
Total Investments Building and General Funds	$147,000.00	$137,829.50
U. S. Treasury Bonds and Notes maturity dates:		
1964 (Note)	5,000.00	5,115.00
1960-65	2,000.00	2,006.00
1967-72	20,000.00	17,525.00
1978-83	50,000.00	44,437.50
	$ 77,000.00	$ 69,083.50
U. S. Savings Bonds maturity dates:		
1962	1,000.00	992.00
1963	4,000.00	3,944.00
1964	35,000.00	34,530.00
1966	30,000.00	29,280.00
	70,000.00	68,746.00
	$147,000.00	$137,829.50

MEDICAL DEFENSE FUND	Face Value	Market Value
U. S. Treasury Bonds	$ 14,000.00	$ 12,899.50
Savings Bonds	7,000.00	6,942.00
Total Medical Defense Fund	$ 21,000.00	$ 19,841.50
Medical Defense Fund Investment maturing dates:		
U. S. Treasury Bonds		
1960-65	4,000.00	4,012.00
1983	10,000.00	8,887.50
	$ 14,000.00	$ 12,899.50
U. S. Savings Bonds		
1962	6,000.00	5,952.00
1964	1,000.00	990.00
	$ 7,000.00	$ 6,942.00
	$ 21,000.00	$ 19,841.50

During the past year, frequent consultations have been held with the investment department of the bank. The Executive Committee and Council reviewed our investment portfolio at each meeting. We are in the process of converting our securities into cash or better yielding securities as our present holdings reach par value or show a profit.

Cash balances in the respective funds as shown on the books of the Association as of July 31, 1962:

General Fund	$10,917.81
Medical Defense	1,824.04
Journal Fund	870.96
Student Loan Fund	466.69
Building Fund	2,781.13
Total cash on hand, July 31, 1962	$16,860.63

Following is the audit of Wolf and Company, Indianapolis, for the fiscal year ending Sept. 30, 1961.

I. W. WILKINS, M.D., *Treasurer*

FINANCIAL REPORT
WOLF AND COMPANY
Certified Public Accountants

INDIANA STATE MEDICAL ASSOCIATION
Indianapolis, Indiana

Exhibit A

BALANCE SHEETS
September 30, 1961

ASSETS

General fund:			
Cash			30,800.83
Note receivable			1,124.06
Inventory—tape recorder			496.54
Deposits with postmaster			607.05
Prepaid expenses			289.55
Accrued interest receivable			1,535.83
Receivable from other funds:			
Medical defense fund	38.21		
Student loan fund	25,000.00		
The Journal	246.43		25,284.64
Reimbursement due for Medicare expenses			1,277.39
Investment in United States obligations at cost, less amortization (Note 1):			
Treasury bonds	138,536.17		
Treasury notes	15,000.00		
Savings bonds	76,000.00		
	229,536.17		
Less accumulated amortization	375.94	229,160.23	
Savings and loan association shares		30,400.64	
Office furniture and equipment:			
General office	18,062.49		
Medicare office	4,437.52		
	22,500.01		
Less accumulated depreciation	9,772.74	12,727.27	333,704.03
The Journal:			
Cash		1,883.72	
Accounts receivable:			
Advertising	8,141.86		
Other	21.53	8,163.39	
General fund		2,753.57	
Postal deposit		203.09	13,003.77
Medical defense fund:			
Cash		4,055.80	
Accrued interest receivable		155.55	
Investments, at cost less amortization:			
U. S. Treasury bonds	14,275.08		
U. S. Savings bonds	9,000.00		
U. S. Treasury bills	2,981.10		
	26,256.18		
Less accumulated amortization	179.26	26,076.92	30,288.27
(carried forward)			376,996.07
Student loan fund:			
Cash		1,539.46	
Notes receivable		39,026.00	40,565.46
Building fund:			
Cash		58,713.63	
Land		65,700.60	
Construction in process (Note 2)		14,907.90	
			139,322.13
Medicare fund:			
Cash		24,756.98	
Recoverable payments made to doctors		25,243.02	50,000.00
			606,883.66

LIABILITIES

General fund:		
Liabilities:		
Accounts payable		763.08
Accrued Payroll taxes		107.67
Payable to other funds:		
The Journal		3,000.00
American Medical Education Fund		36,630.00
Deferred income—exhibitors' deposits		18,985.00
Dues collected in advance		46,628.25
Deposits on tape recordings		309.50
		106,423.50

Fund surplus (Exhibit B)	227,280.53	
		333,704.03
The Journal:		
Liabilities:		
Accounts payable and accrued expenses	666.00	
Prepaid professional cards	2,186.73	
	2,852.73	
Fund surplus (Exhibit B)	10,151.04	
		13,003.77
Medical defense fund:		
Due to the general fund	38.21	
Fund surplus (Exhibit B)	30,250.06	
		30,288.27
Student loan fund:		
Due to general fund	25,000.00	
Fund surplus (Exhibit B)	15,565.46	40,565.46
Building fund:		
Liabilities:		
Loans from members	24,650.00	
Tax reserve	155.73	
	24,805.73	
Fund surplus (Exhibit B)	114,516.40	139,322.13
Medicare fund:		
Funds advanced by U. S. Government (Note 3)	50,000.00	50,000.00
		606,883.66

Notes:

1. General fund investments in U. S. Treasury securities aggregating $143,000.00 have been allocated to the building fund.
2. The association has a contractural liability amounting to $276,000.00 for completion of the building under construction.
3. General fund investment in U. S. Treasury bonds and notes in the principal amount of $40,000.00 are held in escrow by the U. S. Government to secure funds advanced for the Medicare program.

STATEMENT OF FUND SURPLUS

Exhibit B

For the Year Ended September 30, 1961

General Fund:		
Balance, Sept. 30, 1960		252,111.51
Allocation of prior year's dues to building fund by order of executive committee not charged against operations previously		18,075.00
Adjusted balance, Sept. 30, 1960		234,036.51
Excess of revenues over expenditures (Exhibit C)	244.02	
Proceeds of matured bonds transfered to building fund	7,000.00	6,755.98
Balance, Sept. 30, 1961		227,280.53
The Journal:		
Balance, Sept. 30, 1960		23,009.46
Excess of expenditures over revenues (Exhibit D)		12,858.42
Balance, Sept. 30, 1961		10,151.04
Medical defense fund:		
Balance, Sept. 30, 1960		27,684.72
Excess of revenues over expenditures (Exhibit E)		2,565.34
Balance, Sept. 30, 1961		30,250.06
Student loan fund:		
Balance, Sept. 30, 1960		15,488.89
Interest earned		76.57
Balance, Sept. 30, 1961		15,565.46
Building fund:		
Allocation of prior year dues		18,075.00
Revenue:		
Dues allocated		18,395.00
Donations from members		70,690.00
Special donations		356.40
Proceeds of matured bonds transferred from general fund		7,000.00
Balance, Sept. 30, 1961		114,516.40

STATEMENT OF REVENUES AND EXPENDITURES

Exhibit C

For the Year Ended September 30, 1961

GENERAL FUND

	Actual	Budget	Actual Over (Under*) Budget
Revenues:			
Dues	185,188.75	182,910.00	2,278.75
Less dues allocated:			
The Journal	11,748.00	11,469.00	279.00
Medical defense fund	4,926.50	4,778.75	147.75
American Medical Education Fund	36,630.00	36,170.00	460.00
Building fund	18,395.00	18,085.00	310.00
	71,699.50	70,502.75	1,196.75
Dues available for operations	113,489.25	112,407.25	1,082.00
Interest on investments	6,883.33	7,500.00	616.67*
Received from A.M.A.	883.99	1,000.00	116.01*
Net income (expense**)—annual meeting	1,501.21**	2,000.00	3,501.21*
Other income	209.19		209.19
Total revenues	119,964.55	122,907.25	2,942.70*
Expenditures:			
Committees and commissions (Schedule C-1)	17,298.48	19,600.00	2,301.52*
Officers and council (Schedule C-2)	14,700.66	15,050.00	349.34*
Headquarters office (Schedule C-3)	78,702.71	81,025.00	2,322.29*
Woman's Auxiliary	1,794.09	2,665.00	870.91*
Donations	110.00	500.00	390.00*
Employees' retirement fund	7,114.59	6,500.00	614.59
Total expenditures	119,720.53	125,340.00	5,619.47*
Excess of revenues over expenditures (expenditures over revenues*)	244.02	2,432.75*	2,676.77

STATEMENT OF OPERATING EXPENDITURES

Schedule C-1

For the Year Ended September 30, 1961

COMMITTEES AND COMMISSIONS

	Actual	Budget	Actual Over (Under*) Budget
Standing committees:			
Grievance	508.70	350.00	158.70
Student loan	82.65	100.00	17.35*
Medical legal review		50.00	50.00*

Commissions:			
Constitution and by-laws	125.90	500.00	374.10*
Interprofessional relations	109.20	300.00	190.80*
Legislation	6,779.12	7,000.00	220.88*
Public health	827.15	1,000.00	172.85*
Public information	2,074.63	2,500.00	425.37*
Special activities	492.75	200.00	292.75
Voluntary health agencies	878.70	800.00	78.70
Medical economics and insurance	848.55	1,500.00	651.45*
Medical education and licensure	2,561.10	1,700.00	861.10
Building	1,014.07	2,000.00	985.93*
Government medical services	542.01	1,000.00	457.99*
Aging	453.95	600.00	146.05*
Total	17,298.48	19,600.00	2,301.52*

Schedule C-2

OFFICERS AND COUNCIL

	Actual	Budget	Actual Over (Under*) Budget
President	1,344.92	1,500.00	155.08*
President elect	208.00	500.00	292.00*
Council chairman	321.40	300.00	21.40
A.M.A. delegates	4,170.57	4,000.00	170.57
A.M.A. meetings	2,371.01	2,000.00	371.01
Treasurer, auditing and accounting	1,375.00	1,500.00	125.00*
Council travel	1,242.90	1,000.00	242.90
Council meetings	689.10	1,000.00	310.90*
Better Business Bureau	150.00	150.00	
Chamber of Commerce	1,000.00	1,000.00	
Executive committee meetings	279.81	600.00	320.19*
Executive committee Travel	1,547.95	1,500.00	47.95
Total	14,700.66	15,050.00	349.34*

Schedule C-3

HEADQUARTERS OFFICE

	Actual	Budget	Actual Over (Under*) Budget
Salaries	49,004.90	50,000.00	995.10*
Supplies	2,141.31	2,000.00	141.31
Telephone and telegraph	3,700.15	3,500.00	200.15
Postage	2,698.49	2,500.00	198.49
Printing and stationery	1,637.99	1,200.00	437.99
Travel	8,440.10	9,000.00	559.90*
Rent and electricity	4,278.68	4,400.00	121.32*
Organization memberships	471.60	400.00	71.60
Insurance:			
Hospitalization	848.08	800.00	48.08
Other	1,259.64	1,700.00	440.36*
Photographic equipment expense		25.00	25.00*
Extra help	321.66	1,000.00	678.34*
Payroll taxes	1,201.22	1,100.00	101.22
Depreciation	2,139.49	2,000.00	139.49
Maintenance—office machines	425.75	400.00	25.75
Unallocated	133.65	1,000.00	866.35*
Totals	78,702.71	81,025.00	2,322.29*

STATEMENT OF REVENUE AND EXPENDITURES

Exhibit D

For the Year Ended September 30, 1961

THE JOURNAL

	Actual	Budget	Actual Over (Under*) Budget
Revenues:			
Subscriptions:			
Members	11,748.00	11,469.00	279.00
Nonmembers	344.00	431.00	87.00*
Advertising	48,824.26	65,000.00	16,175.74*
Other	3,594.15	1,100.00	2,494.15
Total revenues	64,510.41	78,000.00	13,489.59*
Expenditures:			
Salaries (including extra help)	12,826.76	13,000.00	173.24*
Office expense	456.85	500.00	43.15*
Printing and reprints	53,563.37	58,000.00	4,436.63*
Engravings	4,258.75	5,000.00	741.25*
Travel and meetings	1,511.80	1,800.00	288.20*
Bulk mailing	1,089.07	1,100.00	10.93*
Other publishing expense	443.26	1,200.00	756.74*
Payroll taxes	411.24	400.10	11.24
Employee group insurance	130.32	126.00	4.32
Rent and electricity	2,179.77	2,150.00	29.77
Telephone and Telegraph	210.61	300.00	89.39*
Dues and memberships	30.00	50.00	20.00*
Prizes	225.00	225.00	
Unallocated	32.03	240.00	207.97*
Total expenditures	77,368.83	84,091.00	6,722.17*
Excess of expenditures over revenues	12,858.42	6,091.00	6,767.42

STATEMENT OF REVENUES AND EXPENDITURES

Exhibit E

For the Year Ended September 30, 1961

MEDICAL DEFENSE FUND

Revenues:		
Transfer of applicable portion of dues	4,926.50	
Interest earned—U. S. Treasury bonds	685.82	
Amortization of discount—U. S. Treasury bonds	43.02	
Total revenues		5,655.34
Expenditures:		
Malpractice fees	300.00	
Legal fees	2,790.00	
Total expenditures		3,090.00
Excess of revenues over expenditures		2,565.34

Exhibit F

STUDENT LOAN FUND

Cash balance, Sept. 30, 1960		2,065.23
Revenues:		
Collection of student loans	2,268.95	
Interest earned	76.57	
Advances from general fund	19,898.71	22,244.23
		24,309.46
Expenditures—loans to students		22,770.00
Cash balance, Sept. 30, 1961		1,539.46

Chairman of the Council

Following adjournment of the House of Delegates, the Council met on October 26, 1961, and by secret ballot elected Dr. John M. Paris, New Albany, as 1961-62 chairman. Drs. Don E. Wood, Indianapolis, and Wendell E. Covalt, Muncie, were re-elected members of the Executive Committee for the same period.

January 14, 1962, Meeting

The Council convened for its mid-winter meeting at 10:00 A.M., January 14, in the Student Union Building with a quorum present.

Councilors reported dates for District meetings in their respective areas and the Chairman stated that the bylaws require that programs for such sessions be in the headquarters office 45 days in advance of the meetings.

President Stimson discussed several matters, including the coming special meeting of the House of Delegates to consider a resolution concerned with the proposal that Blue Shield be authorized to negotiate contractually with carriers on a basis of established fees for services performed. The president explained that such action would not commit county societies to the program, but would merely permit Blue Shield the privilege of writing such contracts.

Dr. Stimson said he believed, largely because of winter's inclement weather, that the special meeting should be held in April instead of February when a larger attendance could be expected. He stated that a date for the meeting would be set with approval of the Executive Committee.

President Stimson also discussed the Blue Cross reconfirmation program regarding length of a patient's stay in a hospital and stated that in the interest of improved liaison between Blue Cross and the medical profession, it would be desirable for a physician member of the Blue Cross board to attend Council meetings. He pointed out that such action had been effected.

Dr. Wilkens, treasurer, reported on the financial condition and presented the October 1, 1960-October 1, 1961, audit. (This was published in the March, 1962, issue of *The Journal.*)

A resolution, as recommended by the Executive Committee, was adopted calling for a loan of $150,000.00 at 5% interest to aid in financing the headquarters building program, and Dr. Ralph V. Everly, Building Committee Chairman, reported that construction was proceeding.

After Dr. Frank Ramsey, editor of *The Journal,* had discussed the financial operation of that publication, it was voted that the subscription fee for *The Journal* be increased to $6.00 a year from $3.00.

Dr. Frank Green reported that an Indianapolis bank had stated it would collect amounts due from the student loan fund for about one-tenth of a percent of the loan's face value, with the student loan committee still being empowered to make the loans as it sees fit. Principle of the collection plan was endorsed, but it was voted that the bank submit its proposal in writing.

By formal action, Dr. William Harry Howard, Hammond, was elected to succeed himself for a three-year term as a Blue Shield board member-at-large, his nomination having been made at an earlier meeting of the Council.

Turning to the Blue Cross reconfirmation matter discussed earlier by Dr. Stimson, it was voted that no definitive action be taken until a written legal opinion can be obtained on whether physicians signing reconfirmation approval forms make themselves liable to pay a hospital bill if it is determined later that additional hospitalization is not needed.

Dr. Virgil C. McMahan, chairman, Commission on Convention Arrangements, presented a tentative program for the 1962 annual convention in French Lick.

Dr. Don E. Wood, Legislative Commission chairman, discussed several matters of concern to his commission in the 1963 session of the General Assembly and also reported on proposed legislation at the national level, particularly that dealing with the King-Anderson socialized medicine bill.

The Council received a membership report as of December 31, 1961. (The report was published on page 413 of the March, 1962, *Journal.*)

The budget for the 1961-1962 fiscal year was approved.

Acting at the request of Dr. Nathan Salon, Chairman of the Commission on Aging, the Council endorsed studies of adequate home care programs for the aged and aging.

Council action was taken as follows regarding other Commission reports:

1. Endorsed the Medic-Alert Foundation concerned in identification of uncoordinated, unconscious or dead persons as recommended by the Commission on Public Health.
2. Acting on recommendation of the Commission on Voluntary Health Agencies, endorsed the proposal that each county medical society be urged to form a Committee on Voluntary Health Agencies.

Dr. A. C. Offutt, State Health Commissioner, reported progress being made on an educational program directed primarily at parents of children afflicted with phenylketonuria. The program, as outlined, was approved by the Council.

Dr. E. T. Edwards reported concerning progress of the Joint Study Committee on Economics of Modern Health Services, formation of which was authorized by the House of Delegates.

April 29, 1962, Meeting

Spring meeting of the Council was held at 10:00 a.m., April 29, in the Student Union Building with a quorum present.

Reports concerning programs and planning for district meetings were given by the various coun-

cilors and it was decided that it would be impractical for the Council to set the dates for the district sessions as had been suggested.

President Stimson gave a brief report, including the fact that the Woman's Auxiliary had presented a check for $1,000.00 to help in furnishing the auxiliary lounge in the new headquarters building.

Dr. Charles F. Gillespie, assistant treasurer, presented a report on the financial condition of the Association which has been published in *The Journal*.

Dr. Frank Ramsey, editor of *The Journal*, recommended that professonal cards be discontinued in the publication, explaining that they cannot be economically justified from an advertising standpoint. The Council endorsed the recommendation.

Dr. Francis Land reported on matters slated to come before the annual meeting of the American Medical Association of particular interest to Indiana physicians.

Final action was deferred until the July meeting on a seven-page report detailing proposals for advancement of home care programs for the aged in Indiana.

Dr. A. C. Offutt, State Health Commissioner, discussed two pending bills in Congress calling for free vaccination programs for children against stipulated communicable diseases. He expressed doubt that such programs were needed in Indiana, pointing out that financing of vaccination procedures was secondary to motivation of parents to have their children protected against the diseases.

Dr. Glen Ward Lee, a member of the Commission on Governmental Medical Services, told of plans of the AMA to stage an October meeting on mental health which would include representatives from all states—lay persons as well as physicians. The Council voted that clarification regarding details and plans for the meeting be obtained from the AMA Board of Trustees.

Dean John D. Van Nuys, of the Indiana University School of Medicine, reported that the school probably would enroll from 207 to 210 students this year in contrast to 197 in the last similar period.

Dr. Virgil C. McMahan, chairman of the Commission on Convention Arrangements, presented a revised program for the 1962 French Lick meeting.

Blue Shield representatives present made four suggestions to improve liaison between the profession and Blue Shield, particularly regarding the writing of policies applicable to physicians: (1) Assistance from the Council in establishing underwriting regulations; (2) assistance in developing a benefit plan most nearly satisfying general needs of physicians; (3) better media for statewide communication with physicians and (4) submission of printed materials for review before they are sent to doctors. The Council voted that it would become the group sponsor and coordinator of the physicians' Blue Cross-Blue Shield plan.

There was considerable discussion concerning the reconfirmation program of Blue Cross following action to remove from the table a motion made in January relating to the matter. A letter was read from the Association's counsel which held that individual physicians would not be held liable for hospital charges if they sign documents authorizing a patient's additional stay in the hospital. It was voted by a majority of the Council that it rescind action taken at the July, 1961, meeting which stated that "physicians of Indiana do not participate in the reconfirmation program proposed by Blue Cross." It was explained by Dr. Lester Hoyt, vice-chairman of the professional advisory committee of Blue Cross, that "we are most anxious to have this remain on a voluntary basis and have no intention of starting an enforcement without having proper chance to have everything understood thoroughly."

Building Committee Chairman Dr. Ralph Everly stated that the move from the Hume Mansur Building to the new Headquarters at 3935 N. Meridian would occur on May 4. He also reported, with much gratitude, receipt of gifts from Mrs. J. William Wright, Sr. and J. William Wright, Jr., M.D., to furnish the Council room at the new headquarters location.

The regular membership report was presented showing 4,175 ISMA members as of March 31, 1962—a gain of 94 for the similar period a year ago.

By unanimous action Drs. Alvin J. Haley, Fort Wayne, and Franklin F. Premuda, Hammond, were elected to membership on the editorial board for three-year terms.

Dr. Walter L. Portteus, Franklin, was elected to succeed himself for a three-year term as a Blue Shield Board member-at-large.

June 14, 1962, Meeting

The Council convened July 14 for its summer meeting at 3935 North Meridian, Indianapolis—its first session in the new ISMA headquarters building.

First order of business was an impressive ceremony in which a portrait of the late Dr. J. William Wright, Sr., was unveiled by Mrs. Wright and Dr. J. William Wright, Jr. The portrait hangs in the Council Room, furnishings and appointments for which were furnished by Mrs. Wright and Dr. Wright, Jr., as a memorial to the 109th president of the Association.

President Stimson made a brief report in which he suggested that the Association concern itself now in matters of elective personnel and policy decisions for next year's AMA meeting so that proper groundwork could be established.

Dr. Irvin Wilkens, treasurer, reported on cash balances in various Association funds.

Dr. Frank B. Ramsey, editor of *The Journal*, reported that the anticipated deficit in *The Journal's* budget probably will not materialize to the extent originally believed, largely because of decreased production costs. Dr. E. S. Jones reported

on the June, 1962, AMA meeting. (The report was published in the August, 1962, *Journal.*)

Dr. Norman R. Booher, chairman of the Commission on Voluntary Health Agencies, reported the commission was having good response to questionnaires sent to agencies by the commission. Judgment as to whether the various agencies will receive official sanction of the ISMA will largely be based on answers provided to the commission's inquiries.

State Health Commissioner Dr. A. C. Offutt discussed proposed legislation for the 1963 General Assembly to strengthen medical aspects of nursing homes as a protective measure for patients. Another proposal, he said, would permit local health departments to make a charge for nursing services which are provided in the home by local health department staff nurses.

Dr. John D. Van Nuys, I.U. Medical School dean, reported that the school is not getting enough students from rural areas and that graduates from urban areas do not locate in small towns. Among other matters he explained that effort was being made to reduce the drop-out rate.

The Council adopted a motion to include in its minutes a letter transmitted by Dr. W. L. Portteus, president of Mutual Medical Insurance, Inc., in which he commented on various points raised by the Blue Shield Liaison Committee. Briefly, the letter related the need for a closer working relationship and understanding between Mutual Medical and all physicians, as well as better liaison between Blue Shield and Blue Cross.

The Council nominated Dr. Kenneth Neumann, Lafayette, as a member of the Blue Cross Board of Directors, to fill the vacancy created by the death of Dr. Russell J. Spivey.

Dr. Eugene Rifner, Van Buren, was elected to replace Dr. Neumann on the Council Liaison Committee with Blue Cross.

Dr. Ralph V. Everly, Building Committee Chairman, expressed his thanks to members of the Council for time spent in consideration of matters pertaining to the building program and he and his committee, in turn, received the gratitude of the Council for their efforts.

The membership report, as of June 30, 1962, showed total membership of 4,299—a gain of 14 over the 1961 comparable report.

Acting on a recommendation of the Executive Committee, the Council approved appointment of an advisory committee to assist in business management of *The Journal.* Such committee will include executive secretaries of the Allen, Lake, Marion and Vanderburgh County Medical Societies.

JOHN M. PARIS, M.D.
Chairman of Council

First Councilor District

The First District meeting was held May 3, 1962, at the Evansville Country Club, Evansville. This was a joint meeting of the First District Medical Society and the First District Auxiliary, the first of its kind ever held, and it was very successful. A delicious dinner was served.

Following the dinner Dr. John Mee, Professor of Business Management, Indiana University, gave a talk to the joint meeting. Following this, the group divided and the Auxiliary held a business meeting in another part of the building.

The First District Society meeting then was held and the following officers were elected: Michael Monar, Rockport, president; J. Guy Hoover, Evansville, president-elect; Frank W. Oliphant, Mount Vernon, secretary-treasurer; Patrick J. V. Corcoran, Evansville, councilor; Gilbert M. Wilhelmus, Evansville, alternate councilor. Dr. Corcoran will take office at the close of the French Lick meeting in October. Dr. Wilhelmus was elected to fill the unexpired term of Dr. Corcoran as alternate councilor.

The next district meeting will be held in May or June, 1963, and it is hoped again to obtain a non-medical speaker as has been our custom for the last five years.

I am now finishing my two terms as councilor for this district. I wish to thank all of my friends, both in the First District and throughout the state, for their loyal support and the many gracious favors extended to me during my term as councilor.

WILLIAM B. CHALLMAN, M.D.,
Councilor

Second Councilor District

The annual Second District, ISMA meeting was held June 6, 1962 at the Linton Country Club with the scientific program furnished by a road show. Drs. Holland and Edwards spoke on civic responsibilities during the business meeting. Philip Holland, M.D., was elected president for the coming year; Hugh Ramsey, M.D., vice president; Dr. Brown was re-elected secretary. The meeting in 1963 will be at Bloomington, Indiana. The newsletters from the Councilor to each District member were continued during the year.

E. T. EDWARDS, M.D., *Councilor*

Third Councilor District

Activities in the Third District, as in all other districts of the State, have been geared to political activity in Washington, and everyone has done more than his share of hard work in helping keep American medicine free. Especial praise must be given to the members of the Harrison County Medical Society, who literally "hit the street" and called on everyone in Corydon, giving them explanatory literature concerning the King-Anderson Bill and their action brought a great deal of credit to the district, and to the State and gave the

leaders of the AMA a great deal of courage to continue the fight.

I want to offer my personal congratulations and thanks to our loyal members from Harrison County for this activity.

The Third District Meeting was held in New Albany on May 16, and we had a very interesting program conducted by Doctor Clyde Culbertson, who spoke on Viral Immunizations and by Doctor Morris Best who spoke on Hypocholesterolemic Agents. Our attendance was very good and yet there were some counties of the district who were not represented at all. I must say again to you that attendance at district meetings is very important to all of us, because here is where we elect our Councilor and Alternate Councilor and our Blue Shield Board representative. At the business meeting, which followed, Doctor W. T. Campbell and Doctor James Wohlfeld of Bedford were elected President and Secretary of the Third District for the coming year, and Doctor Donald Kerr was elected to Alternate Councilor and the incumbent was re-elected as member of the Blue Shield Board. The site for the 1963 meeting will be Bedford, and it will be held on the 22nd day of May.

The District Membership has increased, which is a good sign of progress in our area of the State, and I can again compliment all of you for giving the Councilor no problems that have had to be managed at Council level. As I've said in the past years I am very proud to be a member of this District and to represent you and appreciate the honor that you do me in this respect.

I must mention the valuable and helpful work that our wives have done in the Auxiliary and those of you who do not attend the State or the AMA meetings, cannot comprehend the enormous amount of help that comes from those we love the most. To the Auxiliary of the Third District I give my profound thanks.

JOHN M. PARIS, M.D., *Councilor*

Fourth Councilor District

The Fourth District Medical Society held its annual meeting Wednesday, May 16, 1962, at the Sherman House, Batesville. A golf tournament was held in the morning at the Batesville Country Club and a card party for the ladies at the Sherman House.

Dr. Lloyd Hisrich, president of the Society, presided at the business meeting at 11:30 a.m. in the Sherman House. Dr. Bill Freeland was secretary.

Several resolutions were adopted in regard to the District in opposition to the Social Security approach to the care of the aged. Dr. David L. Adler made a report in regard to the constitution and by-laws of the Fourth District Medical Society. Plans were formulated for a legislative coordination effort in the District prior to the fall election.

The annual election of officers was held with Dr. Leslie Baker of Aurora elected president. Dr. Charles Overpeck of Greensburg, vice-president, and Dr. George Morrison of Lawrenceburg, secretary-treasurer. Aurora was selected as the next annual meeting site. Dr. Joe Black, Seymour, was elected for his second term as councilor for the Fourth District.

A luncheon with wives was held in the Sherman House and a cartoonist presented a very entertaining chalk talk following lunch. After luncheon a scientific program was held with Dr. Hisrich presiding. John Cranley, M.D., of Cincinnati, Ohio, presented an exceptional program on the "Diagnosis and Treatment of Vascular Disease." This was followed by a discussion on the Treatment and Care of Premature Infants by Dr. Frank of Cincinnati, Ohio.

There was a fine attendance at all phases of the District meeting with 125 registered. Dr. Robert Zink was presented with the Annual Trophy as golf champion.

The Councilor for the Fourth District has been attempting to meet with every Society at least once each year and has been very graciously received. The Councilor is very grateful for the opportunity to serve the Fourth District for the second time and appreciates their cooperation in matters regarding business and problems of the State Medical Association.

JOSEPH M. BLACK, M.D., *Councilor*

Fifth Councilor District

The affairs of the Fifth District have run smoothly during the past year. No complaints were brought to my attention.

The Fifth District Annual Meeting was held at the Phoenix Country Club, Terre Haute, May 16. The meeting was well attended. The business meeting was held at 5:00 p.m. Officers were elected for next year and Greencastle was selected as the meeting place in 1963. Dr. C. M. Schauwecker, Greencastle, was chosen for President and Dr. Anne Nichols, also of Greencastle, for Secretary-Treasurer. The date of 1963 meeting to be decided later.

The business meeting was followed by a social period and dinner. The after dinner speaker was Dr. Leonard L. Lovshin, of Cleveland, Ohio. Subject: "The Tired Mother." This was a humorous talk and was well received by the doctors and their guests.

V. EARLE WISEMAN, M.D., *Councilor*

Sixth Councilor District

The annual meeting of the Sixth District Medical Society was held Thursday, May 10, at the Connersville Country Club at Connersville.

President John Davis, Flat Rock, presided during the morning business session. Discussion concerning payments of AMEF was held, but no action was taken. Dr. Frank Green, Rushville,

explained the activities and developments in "I-Hope," and urged every member to become active in this program.

The following officers were elected for the coming year:

President—Dr. Dave Ellis, Rushville
Vice President—Dr. Perry Seal, Brookville
Secretary-Treasurer—Dr. Charles Loomis, Richmond
Blue Shield Board of Directors for three-year term—Dr. Walter U. Kennedy, New Castle.

After the business session, a joint luncheon with the Auxiliary members was held and all enjoyed a most interesting and instructive illustrated lecture given by Dr. Richard M. Nay, Indianapolis. His topic: "African Medicine as Practiced in Katanga Province." Dr. Nay told of his experiences while in Africa which he had under the auspices of the Methodist Church.

Dr. Perry Seal had secured the scientific program for the afternoon session. The speakers were sponsored by the Indiana Heart Foundation, and their topics were as follows:

Etiology: Dr. John Ling, Richmond
Clinical Aspects: Dr. Manfredi, Indianapolis
Therapy: Dr. James Warriner

Richmond, Indiana, will be host to the next meeting of the Sixth Medical Society, on May 16, 1963.

WILLIAM R. TINDALL,
Councilor.

Seventh Councilor District

The most significant and outstanding event occurring during the last year in the Seventh District was completion of a new headquarters building for the Indiana State Medical Association at 3935 North Meridian Street in Indianapolis.

Indeed, the opening of this functional and completely modern structure marks a milestone for Indiana medicine and, in the years to come, as now, will be a source of pride for the profession . . . for the community . . . for the state.

The headquarters can only be appreciated by a personal visit—and we urge that members of the Indiana State Medical Association, when they are in Indianapolis, make it a point to visit the building. We are confident then that you will agree that the physicians of Indiana, and their families, have a tangible asset of lasting and justifiable pride.

It was the privilege of your Councilor to serve as Chairman of the Building Committee, which included Drs. Frederic W. Brown, Fort Wayne, R. Case Hammond, Evansville, Harry Pandolfo, Indianapolis and Jack E. Shields, Brownstown.

The building embraces some 13,000 square feet and contains sufficient rooms for all Indiana State Medical Association Commission and Committee meetings, except the House of Delegates. Centerpoint of the building's interior is the large, tastefully decorated Council Room.

We pause now in this report to pay a particularly deserved tribute to Mrs. J. William Wright, Sr., and J. William Wright, Jr., M.D., whose generosity made possible the furnishings and decor of the Council Room. This was done by them as a memorial to Dr. Wright, Sr., a past president of the Association and long active in its affairs in so many ways.

The room is permanently dedicated to Dr. Wright, Sr., by an oil portrait, painted by special commission.

In addition to the Council area there is a room designated as the Auxiliary lounge which provides ample and pleasant space for meetings of the ladies' group; an Executive Committee room; an office for the Association President and offices for the executive staff.

The clerical and secretarial staff is housed in a large, well-lighted area and *The Journal* has its own room for publication activities. Quarters also are provided for Medicare and the library contains all of the pictures of the Past Presidents of the Association.

The basement contains full storage facilities for the multitude of supplies necessary for day to day operation of the Association as well as a modern heating and ventilating system.

The exterior of the structure is dignified and in complete keeping with the professional dignity of our Association and is marked by a unique, decorative, aluminum screen. Parking space is provided for some 40 cars.

A handsome flagpole was provided by Dr. Guy A. Owsley, of Hartford City, Immediate Past President of the Association, and a "prime mover" in making the new headquarters a possibility.

Much favorable comment has been heard concerning the building . . . its decor . . . its functional qualities . . . all reflecting the thought and dedicated labor of many, many individuals.

Formal dedication occurred on July 15 and featured the remarks of Dr. George Fister, President of the American Medical Association.

Perhaps the philosophy underlying our new headquarters can best be summed up by quoting the dedicatory plaque:

"This building is dedicated to the purpose of federating and bringing into one compact organization the medical profession of the State of Indiana; to extend medical knowledge and advance medical science; to elevate the standard of medical education; to promote friendly intercourse among physicians; to enlighten and direct public opinion in regard to the great problem of medical care, and public health, so that the profession shall become more capable and honorable within itself and more useful to the public in the prevention and cure of disease and in prolonging and adding comfort to life."

RALPH V. EVERLY, M.D., *Councilor*

Eighth Councilor District

The Eighth District Medical Society held its annual meeting at the Delaware Country Club, Muncie, June 13, 1962. Golf was played in the afternoon by those who desired. A social hour for doctors and their wives and guests was held in the club at 5:30 p.m. Following this, a short business meeting was conducted with Dr. Leroy B. Chambers, of Union City, President of the Society, in charge. After the business meeting, dinner was served in the club dining room to about 90 doctors, their wives, and guests. After dinner, Dr. Richard Nay of Indianapolis addressed the group on the subject, "Medicine in the Congo."

New officers for the district were elected as follows:

President—Eugene M. Gillum, M.D., Portland.
Secretary—Ralph M. Steffy, M.D., Portland.

Attending from the Headquarters office were:
James A. Waggener—Executive Secretary.
Howard Grindstaff—Field Secretary.

On July 8, 1962, a meeting was held at Mercy Hospital, Elwood, under the direction of Dr. Ralph Ploughe, a member of the Commission on Aging The purpose of this meeting was to present the Commission's proposed program for "Home Care of the Aged."

Dr. Salon, Chairman of the Commission, Dr. Offiutt, Secretary of the State Board of Health and Dr. Yoho were the speakers. About 25 doctors of the area attended and there was quite a lively discussion following the presentation.

GORDON B. WILDER, M.D., *Councilor*

Ninth Councilor District

The annual meeting of the Ninth Councilor District was held May 24, 1962, at the Carmel Country Club with Hamilton County Medical Society serving as host. Dr. J. R. Karlick served as President and Dr. Doyle B. Manhart served as Secretary. Sports-minded physicians played golf in the morning. Dr. J. S. Battersby of Indianapolis presented an informative discussion on the "Emergency Treatment of Chest and Abdominal Injuries." This was followed by a business meeting presided over by Dr. Claude Donahue. All counties were represented with the exception of White County. Mr. James Waggener and Mr. Joe Palmer of the ISMA discussed current problems involving medicare. Mr. L. Converse presented information from Blue Shield. Dr. A. E. Stouder of Kempton was re-elected Alternate Councilor for a term beginning in October 1962.

A resolution from the Tippecanoe County Medical Society suggesting a return to the principle of professional courtesy—particularly in relation to charges for medical care for physicians and their dependents—was presented. This embodied the suggestion that Blue Cross policies be made available without Blue Shield if the physician so desired. The resolution was adopted and will be presented at the fall meeting of the ISMA. The members also indicated an interest in the establishment of a Medical Examiners System in Indiana.

The Boone County Medical Society was chosen to host the 1963 meeting to be held May 15, 1963 at Ulen Country Club in Lebanon.

The dinner was followed by an interesting presentation by Dr. Richard Nay of Indianapolis on his experiences in Africa.

The Councilor has attended all the meetings of the Council. In addition, he has served as a Council member on the Student Loan Committee and as a member of the Council Liaison Committee with Blue Cross and with Blue Shield. Bi-monthly letters have been sent to component societies. Numerous new physicians have entered practice in the Ninth District and several hospitals are in the process of expansion. Misunderstandings regarding the Blue Shield Program, the AMA statement on Free Vaccine for children, and the Blue Cross 15-day reconfirmation program were partially resolved. These matters point up the continued problems in communications between the many facets of organized medicine and indicate our lines of communication, although better than in the past, need much improvement.

As of April 1962, 68% of the members of the 9th District had contributed to the new ISMA Building, and four counties, Fountain, Montgomery, Tipton and Warren had 100% of their membership contributing. Tippecanoe County had 80%. With the dedication of the new ISMA Building, it is hoped that all members will participate.

K. O. NEUMANN, M.D., *Councilor*

Tenth Councilor District

The fall meeting of the Tenth Councilor District was held October 11, 1961, at Phil Smidt's Restaurant, Whiting. About 125 members and guests were present.

Minutes of the previous meeting, April 1961, approved by Dr. Milton Gevirtz, Tenth District President.

During the dining hour, VIP's present were introduced by Dr. Gevirtz. A standing ovation was given Dr. Harry Stimson, President-elect of the ISMA. He made a brief report on the ISMA convention and gave some idea of his program for the following year.

R. N. Bills, M.D., President of the Lake County Medical Society; Theodore Makovsky, M.D., of Porter County; and Eugene O'Brien, M.D., of Jasper-Newton, were presented along with the Alternate Tenth District Councilor, Ralph C. Eades, M.D., of Valparaiso. Dr. Gevirtz introduced Howard Grindstaff, Field Secretary from the ISMA who spoke briefly.

Mrs. Fargher, of Michigan City (LaPorte County Auxiliary), spoke briefly on the Auxiliary Legislative matters.

Dr. R. N. Bills then took over as presiding officer while the Lake County Society voted on two new

members, Drs. John Crise and Irving Feisot. The first application papers were received for Drs. Daniel Black and Michael Brand followed by the naming of officers of the branch societies in Lake County.

The election of officers for the Tenth District followed:

Leonard Neal, M.D., Hammond, President
Eugene Beaver, M.D., Rensselaer, Secretary
Ralph C. Eades, M.D., Valparaiso, Alternate Councilor for three years.

After the reading of the minutes of the spring meeting by Dr. Leonard Neal, District Secretary, Dr. Gevirtz again took the gavel. He introduced Mr. Frank Barton, Secretary to the Council on National Security for the AMA. He spoke on "Civil Defense Magic" which was an entertaining demonstration of how doctors ought to be attracted to civilian defense through practice of the magic arts of defense in every community.

Mrs. R. N. Bills, 10th District Councilor of the Woman's Auxiliary, was in charge of the women's social hour. She was assisted by Mrs. J. A. Carbone, President of the Lake County Auxiliary. Mrs. Burton Kintner, State President of the Woman's Auxiliary, was also present and spoke briefly to the ladies as well as to the general assembly.

Meeting was closed by Dr. M. Gevirtz to meet again in the spring.

The Spring meeting of the Tenth Councilor District was held May 9, 1962, at Wellman's Holiday Inn at Valpariso in conjunction with the Lake County Medical Society and the Indiana Academy of General Practice. The Academy gave credit for attendance at the scientific part of the meeting to its members.

Leonard Neal, M.D., of Hammond, President, was in charge. Eugene Beaver, M.D., of Rensselaer, is Secretary-Treasurer. Ralph C. Eades, M.D., of Valparaiso, is Councilor from the District having succeeded Dr. J. P. Vye, deceased.

John B. Twyman, Executive Secretary of the Lake County Society, was in general charge of arrangements. He was assisted by Mrs. Ralph C. Eades, who helped arrange a tour of Valparaiso University for the ladies auxiliary and by Mrs. E. J. DeGrazia, Mrs. Ed. Cotterman and Mrs. Paul C. Vietzke who arranged a special program after the dinner, for the ladies.

President Neal introduced Dr. Stanford Sweany of Hammond who gave a lecture on "Fungus Diseases Affecting the Chest." This included tuberculosis, histoplasmosis, yeast infections, etc.

The second hour was in the field of Pediatrics, featuring a study of duodenal ulcers in children, given by Dr. Joseph E. Coleman, of Evansville, Indiana. There was considerable interest in the subjects as evidenced by the number of questions asked.

The dinner was smorgasbord. Minutes of the 1961 fall meeting held at Phil Smidt's in Hammond, were read by John Twyman, and approved unanimously. President Neal then introduced several guests including Drs. Thos. C. Hall, President of Porter County Medical Society, and Thos. Tyrell, of Hammond, President of Lake County. Each made comments concerning his particular organization. Both commented on the current political situations facing the medical professions and encouraged all members to maintain a firm grip on our societies in order to meet the confronting challenges. The request of the AMA executive secretary (Dr. Blasingame) was particularly singled out concerning the call for an investigation of Abraham Ribicoff's H.E.W. office, relating to improper use of moneys for office expenditures.

Dr. C. R. Olvey, of Muncie, Ind., President-Elect, IAGP, represented the IAGP sponsor of the scientific part of the meeting. He reiterated the stand American medicine should take, especially from the viewpoint of a General Practitioner.

The ISMA office was represented by Howard Grindstaff in the absence of Mr. James Waggener who was attending a meeting elsewhere.

Mr. L. E. Converse of Blue Shield, presented an informative and comprehensive picture of Blue Shield—particularly in relation to the new "deductable" policy designed especially for doctors. He was convincing in giving facts and figures in several instances where Tenth District physicians had been misinformed or were confusing several issues of varying importance.

The Councilor, Dr. Eades, brought greetings from Dr. Harry Stimson, President of the ISMA, who was attending the Wisconsin State Medical Society meeting as a part of the chief officer's duties. He announced the Dedication meeting of the new State Headquarters Building on July 15, 1962. The new building is located at 3935 North Meridian Street, Indianapolis, and is already in use, the state headquarters having been moved out of the Hume Mansur Building this week.

A message from former President Guy Owsley, of Hartford City, Indiana, concerning interest in, and support of I-HOPE (Indiana Health Organization for Political Education) was read. ISMA members were invited to join this new organization and to assist it in every way possible. Since it is a distinct and separate organization, membership in one does not constitute membership in the other.

R. Krause and K. Brown, representatives of Eli Lilly & Co., who, along with the IAGP and Indiana Cancer Society, sponsored the meeting as part of the annual Road Show, were presented.

The 8:00 p.m. session was presented by Dr. J. E. Coleman, of Evansville, who lectured the first hour after dinner on "Pediatric Problems Seen by the Family Doctor." It was a practical review on common physical ailments complicated by psychological and psychiatric conditions involving parents.

The second, and closing hour, was presented by Dr. Sweany regarding practices applied to pulmonary function testing, exp. emphysema. A questions and answers session followed.

Meeting was dismissed by Leonard Neal, M.D., President, following announcement that the fall meeting will be held at Phil Smidt's Restaurant in Whiting, October 3, 1962. The program will be announced later.

RALPH C. EADES, M.D., *Councilor*

Resolution

WHEREAS, time has again taken its toll of one of the members of the Indiana State Medical Association, in the death of J. P. Vye, M.D., Councilor from the Tenth District. Dr. Vye resided in Gary, Indiana, until his death on March 14, 1962. He died in Gary Mercy Hospital following an extended illness, and

WHEREAS, Dr. Vye was a loyal member of his profession. He maintained the highest ethical principles possible. He served long and well the profession of medicine which he had loved so well, for some 30 years. He was a doctor of medicine in the true sense of the word. And,

WHEREAS, Dr. Vye was devoted to his wife, Rosa, and to his sons, John (a student at St. Xavier in Cincinnati), and Dr. Malcolm (now serving his internship in Denver, Colorado). His entire family was a medical one; and

WHEREAS, he was very active in all medical problems which face doctors today.

BE IT THEREFORE RESOLVED, that the Tenth Councilor District of the Indiana State Medical Association at its regular spring meeting this 9th day of May, 1962, hereby offers its most sincere sympathy to the entire family of Dr. Vye and offer a standing, silent tribute to its former Councilor.

BE IT FURTHER RESOLVED, that a copy of this resolution (appropriately signed) be sent to each member of the family mentioned herein, pertaining to the demise of their husband and father and our colleague in the practice of medicine in the State of Indiana.

Leonard Neal, M.D., President,
10th District, ISMA
Ernest Beaver, M.D., Secretary,
10th District, ISMA

This Resolution offered by Ralph C. Eades, M.D., the present Councilor, seconded by many and passed unanimously.

Eleventh Councilor District

Since our last meeting in the Fall of 1961, much has been said and much has been done. The problem of the Blue Cross Fee for Service Plan versus the Blue Cross Indemnity Plan has been a vital issue with the Indiana State Medical Association. As you all know, Resolution 26 was tabled at the meeting in the Fall only to be brought up again in the meeting this Spring. The House of Delegates voted unanimously for the measure for the State of Indiana. I read letters from this District written to the President stating that this meeting was rigged; I have every personal reason to believe that it was not. I for one was somewhat opposed to the treatment that we felt that we had been given by Blue Shield. I tried my best to note the voting of the delegates from this District. Some were for and some were opposed. Nevertheless, until this is taken from the books we have it with us. One deplorable thing I noted was that one county had sent its delegate to vote in one manner, he informed us he was going to vote in another. I do not believe this to be representing the county. If the delegate felt that he could not carry out the mandate of his county, I feel that he should have stepped aside. These are problems which each and every county will have. The Indiana State Medical Association turned down the proposal for Old Age Medical Care under the Blue Shield National Plan. I see no reason to make any comment concerning that here. The subscription for *The Journal* was raised in order to meet the deficits of the periodical. This seemed to your Councilor to be a definite step towards financial security for our Association. I did not feel that it was wise for us to operate a *Journal* which was running into debt. Therefore, I agree with the rise in *The Journal* price.

I would have you know that on July 15, the building of the Indiana State Medical Association will be dedicated. I feel that we can be very proud of this building. I feel that it will serve our needs well now and in the future.

Today we will vote upon an amendment to the Constitution of this body. I would entertain the discussion as to whether or not these meetings could best be held in an evening with a business session, and the scientific programs be dispensed with. It would seem that this Eleventh Medical District is a political instrument for organized medicine and that this should take precedent. Times and transportation have changed. All of us are able to attend State and National Meetings at will. Therefore, the need for scientific meeting here is much less than it was in yesteryear. I do not make this as a motion, I only request that some debate on the subject come to the front.

Your Councilor in addition to attending each and every Council Meeting, since becoming Councilor, has given some 10 or 12 addresses concerning the King-Anderson Bill. I feel that it is only fitting and proper for medicine to understand its own position at the present time. I have most recently talked before the Local Chapter (in Marion) of the Brotherhood of Electrical Workers. This is a branch of the American Federation of Labor. These men were kind, courteous, and considerate of my talk. They reserved only the right to answer me and to ask questions. I would have you know that this was the most intelligent group and the best informed group to which I talked. I would also have you know that these gentlemen have an entirely different philosophy concerning Free Enterprise and a Free America than that presented

by yourselves and/or organized medicine. These people do not understand the freedoms of Free Enterprise. These people are taught and have consumed themselves in that what is good for one is good for all. While they pride themselves in a slogan, "we must continue to emphasize the dignity of the individual," their idea of the dignity of the individual and your idea and my idea of this dignity is greatly different. We cannot cry purism on the one hand and on the other hand deal with our fellow men in a selfish, antagonistic, and egotistical manner. It is best that you and I, as doctors of medicine, turn back our pages of life to that area in which we became dedicated to the service of our fellowmen. We need each and every one of us to make a clean start and to rededicate ourselves to the proposition that we are upon this earth as doctors of medicine to alleviate human physical, mental and spiritual anguish. We need to fulfill this singleness of purpose and forget the financial rewards. We need to turn and go about our work quietly and without shouting so that we might profit by the adage that, "your Father who seeth in secret will reward thee openly." It would seem to your Councilor that we as a profession have become so engrossed in our own dignity that we have lost most of the attributes which would make us dignified. We have become more a slave of material and financial gain and less a slave to our profession. Patients seem more often to be exploited and cared for only at the best interest of the physician. As your Councilor I beg each and every one of you to take an honest interest in each of your patients and I assure you that the financial gains will come. I would entertain from each and every county any problem of which they think I might be of aid or counsel. I would invite each and every one of you who have problems that your feel should come before the Council to advise me of them whenever possible. I would ask in our fight in the next few weeks opposing the King-Anderson Bill that those of us in the Eleventh Medical District fight with vigor, with purpose, with true reasoning, with dignity and with conduct becoming to gentlemen. At no time let us lower ourselves from this position, but let our campaign show that the physicians of this District are made up of those attributes.

EUGENE S. RIFNER, M.D., *Councilor*

Twelfth Councilor District

The Twelfth District Annual Meeting was held May 16, 1962, in Fort Wayne, with the Allen County Medical Society serving as host. Dr. Stephen C. Michaelis, Fort Wayne, presided. At the business meeting William R. Clark, M.D., Fort Wayne, was elected alternate councilor. Other officers elected were: Donald G. Mason, M.D., Angola, president; Evered E. Rogers, M.D., Auburn, vice president; Marvin E. Priddy, M.D., Fort Wayne, secretary-treasurer.

Dr. Eugene Senseny reported on the I-HOPE program and requested all to contribute as much as possible to this effort. Dr. F. L. Land gave a detailed report concerning the AMA political structure and the recent legislative activities on the national level. Dr. Burton E. Kintner, Thirteenth District Councilor, was introduced and spoke briefly. Mahlon F. Miller, M.D., reported on the state Blue Cross affairs, and Mr. L. E. Converse gave additional data and information. The district business meeting was well attended, there being 49 members present.

The date for the annual Twelfth District Medical Association meeting for 1963 was voted upon and will be held in Fort Wayne on May 22.

Following the business meeting a social hour was held and dinner was served. The speaker of the evening was Dr. John D. VanNuys, Dean of the School of Medicine, who spoke in his usual delightful manner regarding medical education in general and medical education at the Indiana University in particular. He stated that the entering freshman class is the largest and probably the best and brightest class ever accepted. The attendance at dinner and Dr. VanNuys' address was 226.

MILTON F. POPP, M.D., *Councilor*

Thirteenth Councilor District

The Annual Thirteenth District meeting was held in South Bend on October 4, 1961. We were favored with a dinner speech by Senator Karl Mundt, senior senator from South Dakota. He spoke to a large audience on the subject, "Your Washington and You," in which he presented the obligations and duties of doctors as citizens to let their representatives in Congress know our views on issues before it. "Don't be a four-cent citizen!" he said. "Don't be satisfied with writing your congressman once and sitting back comfortably that you have reached his 'ear.' Write again and again. After the third or fourth time he will have read the letter in person and given you his best reply. It will cost you more than one four-cent stamp for a single letter, but don't be a four-cent citizen!"

Plans are under way by Dr. Jim Wilson, President of the Thirteenth District, to involve each of the presidents of the component county medical societies in a policy formulating meeting to permit a more representative business meeting. Resolutions to be presented before the House of Delegates in October will be discussed and an effort made to allow each doctor who wishes to be heard to express his views on these and other issues. Since this meeting will be held just prior to the House of Delegates Meeting in October it will be very pertinent to discuss the resolutions and formulate policy concerning their support.

Special effort has been expended on the behalf of I-Hope, the Building Fund and King Anderson Bill defeat. The efforts in these directions

have paid off and greater effort will be expended in the future.

Dr. Robert Rouen, Elkhart, is the new president-elect.

B. E. KINTNER, M.D.,
Councilor

The Journal

The 1961-62 budget was set by the Budget Committee with an expected deficit of $18,868. This was in accordance with the best information at that time and was based on a scheduled three percent increase in printing costs and an expected decrease in advertising revenue.

This report is written at the end of the ninth month of the fiscal year. The actual deficit is now just under $5,800. A lesser loss than that which was anticipated has been made possible by numerous small economies, the largest of which has been a more economical printing bill despite the increased rate.

With the exception of the Roster Issue the other eight issues were published at an expense slightly below the actual receipts for the corresponding eight-month period. It is expected that the Convention Issue in which this report is published will be unavoidably larger than average and more expensive than average.

During the year the Council reviewed the financial aspect of the Professional Card portion of *The Journal*. The basic charge of two dollars per insertion for professional cards has not been increased for many years, in spite of increased expenses. It was found that the charge would have to be increased to five or six dollars, or in the range of $80 to $90 per year, to produce an income in line with other advertising rates and with printing costs. The Council decided to discontinue the publication of professional cards.

With the elimination of this money-losing feature and the added revenue from the five dollar increase in subscription price the budget for next year should be in balance. Advertising experts predict that there will be a slight increase in advertising during the next twelve months.

The Council has established a Business Advisory Committee for *The Journal* and recommended the appointment of each of the full time lay executive secretaries of county medical societies in the state. Arthur Tiernan of Evansville, Larry Pickering of Fort Wayne, John Twyman of Gary and Arthur Loftin of Indianapolis have accepted this responsibility.

The many special features of *The Journal* continue to prosper. There is a good prospect of obtaining an edited Clinical Pathological Conference for regular publication in the near future. We are receiving an adequate and well balanced selection of scientific articles. In fact, with the limitation of space due to fewer advertising pages, we now have a backlog of accepted scientific articles which is larger than normal. This will be reduced by refraining from requested articles as much as possible.

FRANK B. RAMSEY, M.D., *Editor*

Delegates to AMA

Two resolutions on approved internships introduced by Indiana delegates at the AMA House of Delegates meeting in Chicago were passed at the meeting June 25.

The first resolution stipulated that the Council on Medical Education and Hospitals discontinue immediately denial of approved internship programs on the basis of the hospital not having an organized out-patient department.

The second asked that a committee of private practicing physicians of the House of Delegates be appointed to study this problem and report its findings and recommendations back to the House in June, 1963.

Dr. Harold C. Ochsner, Indianapolis, served as chairman of the AMA reference committee on Medical Education and Hospitals.

Health care for the aged, medical discipline, composition of the AMA Board of Trustees, a study of the American Board of Abdominal Surgery, relations with the American College of Surgeons and voluntary health insurance were among the major subjects acted upon by the House of Delegates.

Dr. Edward R. Annis of Miami, Florida, chairman of the AMA National Speakers Bureau and well known spokesman in the campaign against the King-Anderson Bill, was chosen president-elect of the association. Dr. Annis will become president at the June, 1963, annual meeting in Atlantic City, succeeding Dr. George M. Fister of Ogden, Utah, who assumed office at the Tuesday night inaugural ceremony in Chicago.

The AMA 1962 Distinguished Service Award was voted to Dr. Russell L. Cecil, 81, of New York City, senior editor of the Textbook of Medicine and one of the nation's leading researchers in the field of arthritis.

Final registration figures at the meeting reached a total of 42,643, including 14,092 physicians.

Health Care for the Aged

The House received 17 resolutions expressing full support of the Kerr-Mills program and firm opposition to the King-Anderson type of legislation. In reaffirming the position of active opposition to the King-Anderson Bill, the House cited the following reasons:

1) "the lack of need for such a plan.
2) "that it would provide inadequate care for all aged rather than complete care for those who need help.
3) "the fact that inherent in the use of the Social Security mechanism are governmental controls of medical practice which would increase with the expansion of the program.
4) "deterioration of the quality of medical care

not only for the aged but for the population as a whole."

In reaffirming strong support for the Kerr-Mills Act, the House declared that "the Kerr-Mills method should be given a fair and reasonable chance to meet the need and thus remove the demand for further Federal legislation."

It urged that in states where existing programs indicate a need for a Kerr-Mills implementing law, each state association should actively sponsor and promote with other responsible citizens the enactment of such a law. It also urged the state associations to "work actively with other responsible citizens in reviewing the functions of the law, evaluating its effectiveness and aggressively supporting improvements in programs to aid those aged who need help so as to achieve the provision of quality medical care and service."

The House took no action on one resolution which called for non-participation in the implementation of the King-Anderson Bill, but it urged individual physicians to give particular consideration to the following sections of the Principles of Medical Ethics:

"Section 1.—The principal objective of the medical profession is to render service to humanity with full respect for the dignity of man. Physicians should merit the confidence of patients entrusted to their care, rendering to each a full measure of service and devotion.

"Section 5.—A physician may choose whom he will serve. In an emergency, however, he should render service to the best of his ability. Having undertaken the care of a patient, he may not neglect him; and unless he has been discharged he may discontinue his services only after giving adequate notice. He should not solicit patients.

"Section 6.—A physician should not dispose of his services under terms or conditions which tend to interfere with or impair the free and complete exercise of his medical judgment and skill or tend to cause a deterioration of the quality of medical care."

Commenting on the Association's fight against the King-Anderson Bill, Dr. Leonard W. Larson, retiring president, told the opening session of the House that "this great struggle has been testing again whether the science and art of medicine will be permitted to grow and flourish in freedom, or whether progress in medicine will be stunted and shriveled by the excesses of government control."

He declared that the steadfast refusal of the AMA to compromise on basic principles "has been a source of strength for us and our friends." Dr. Larson expressed confidence in ultimate victory, but he added that victory will impose a solemn obligation of responsible leadership for all physicians.

Also commenting on the question of compromise, Dr. Fister in his inaugural address said "we will not compromise with those who regard medical care problems as simply playthings in the game of politics—gimmicks to attract the votes of the gullible."

Medical Discipline

To implement one of the major recommendations made by the Medical Disciplinary Committee at the June, 1961, meeting in New York, the House approved a change in the Bylaws under which a proposed Section 1 (B) of Chapter IV will now read:

"In addition to such disciplinary action as may be taken under the constitution and bylaws of the component society and constituent association to which the member belongs, or when a state medical association to which a member belongs requests the AMA to take disciplinary action, or when at the request of the American Medical Association the state association to which the member belongs consents to disciplinary proceedings by AMA, the Judicial Council, after due notice and hearing may censure him, or may suspend or expel any member of the American Medical Association from AMA membership only for an infraction of the Constitution or these Bylaws or for a violation of the Principles of Medical Ethics."

AMA Board of Trustees

The House approved a report of the Ad Hoc Committee on the Board of Trustees which recommended that the size of the Board be increased from 11 members to 15 members. This will be accomplished by adding three elected members and by including the immediate past president of the Association for a one-year term. The House also accepted a committee recommendation that set the term of office for elected Board members at three years and limited the number of terms to three, for a maximum total of nine years' service. To implement the House action, the Council on Constitution and Bylaws submitted changes in the Constitution and Bylaws for consideration at the 1962 Clinical Meeting.

American Board of Abdominal Surgery

A study report from the Council on Medical Education and Hospitals, recommending that recognition should not be granted to the American Board of Abdominal Surgery as a specialty board, was approved by the House. In accepting the Council report, the House also declared its disapproval in principle of establishing specialties which are based largely or wholly on an arbitrarily defined anatomical region of the body.

The study, which was carried out under instructions from the House of Delegates at the 1961 Clinical Meeting, concluded that the present contribution of the American Board of Abdominal Surgery to the advancement of surgery and the betterment of public health is inadequate in many important respects. It also concluded that the American Board of Abdominal Surgery does not

offer significant potential for the advancement of surgery and the betterment of public health.

American College of Surgeons

In considering a Board report and four resolutions involving surgical assistants and relations between the AMA and the American College of Surgeons, the House declared that the adoption and interpretation of the Principles of Medical Ethics is the prerogative and duty of the American Medical Association. It also restated the Association's June, 1961, policy statement in the following manner:

1. "Each member of the AMA is expected to observe the Principles of Medical Ethics in every aspect of his professional practice.

2. "Each doctor engaged in the care of the patient is entitled to compensation commensurate with the value of the services he has personally rendered.

3. "No doctor should bill or be paid for a service which he does not perform; mere referral does not constitute a professional service for which a professional charge should be made or for which a fee may be ethically paid or received.

4. "When services are rendered by more than one physician, each physician should submit his own bill to the patient and be compensated separately whenever possible.

5. "It is ethically permissible in certain circumstances, however, for a surgeon to engage other physicians to assist him in the performance of a surgical procedure and to pay a reasonable amount for such assistance. This principle applies whether or not an assisting physician is the referring doctor."

Voluntary Health Insurance

In accepting a Council on Medical Service report on the utilization of state and federal tax funds to provide voluntary prepayment health insurance protection to assist the aged in meeting the costs of health care services, the House approved the following policy statement:

1. "The need for application of the prepayment or insurance principle to protect our people against the costs of medical care is fully recognized and applies to all ages rather than to the aged alone.

2. "Persons financially able to prepay their own expenses are expected to do so and must be encouraged rather than compelled to do so.

3. "Persons financially unable to prepay adequately their expenses may properly be assisted to the degree necessary by their families, their communities, their states, and if these fail, by the Federal Government—but only in conjunction with other levels of government.

4. "The prepayment system should be devoid of governmental controls.

5. "Dignity and self-sufficiency for the individual should be upheld.

6. "The protection offered must be reasonably comprehensive rather than token in character."

The House recommended that the Board of Trustees and the Council on Medical Service explore all possibilities, using these principles as a basis.

Miscellaneous Actions

In considering reports and resolutions on a wide variety of subjects, the House also:

Learned that the Board of Trustees has instructed the Council on Drugs to conduct a study on the relationship between **tobacco and disease.**

Disapproved a suggestion that the Council on Medical Education and Hospitals be replaced by **two separate councils** on undergraduate and graduate medical education.

Referred to the Board of Trustees a proposal that at least six members of the **Council on Medical Education and Hospitals** shall be engaged primarily in the private practice of medicine in hospitals without a medical school affiliation and that no more than four members may be salaried personnel of a medical school or university.

Approved a resolution that **honorariums** be provided for the Association's elected officers in amounts to be determined by the Board of Trustees.

Adopted an AMA Statement of Principles on **Mental Health** and urged all constitute associations to lend active support to the First National Congress for Mental Illness and Health, to be held in Chicago in October.

Endorsed a resolution on **employment of the handicapped,** stating that each individual candidate for employment should be evaluated in light of his ability to perform useful work.

Approved a Guide to the Organization and Operation of **Airport Medical Services** submitted by the Council on Occupational Health.

Endorsed the joint statement on **narcotic addiction** by the AMA and the National Research Council of the National Academy of Sciences.

Urged automobile manufacturers to make seat **belts,** approved by the Society of Automotive Engineers, standard equipment on all automobiles.

Approved a recommendation that **AMA meetings** be scheduled as follows: Annual Meetings—1966, Chicago; 1967, Atlantic City, and 1968, San Francisco, and Clinical Meetings—1965, Philadelphia, and 1966, Las Vegas.

Recommended that the Council on Medical Education and Hospitals conduct a study of **specialty residencies.**

Reaffirmed its opposition to **compulsory coverage of physicians** under the Social Security Act, after receiving 11 resolutions opposing coverage and only two favoring the inclusion of physicians.

Accepted the report of the **Committee on Communications** as information, and, in considering the committee recommendations, suggested that the Executive Vice President present a report of Association activities to the House at each meeting.

Opening Session

At the Monday morning session, the AMA presented a special citation to Jackie Cooper, star of

television, stage and movies, for his portrayal of a Navy doctor in the "Hennesey" television program. The 1962 Joseph Goldberger Award in clinical nutrition was presented to Dr. Edwards Albert Park of Baltimore for his investigations of rickets and scurvy in children. Dr Larson received a plaque for his work on the medical advisory board of the Sears-Roebuck Foundation. The American Medical Association was given awards of appreciation from the Cuban Medical Association in Exile and the Girl Scouts of America.

Inaugural Ceremony

Dr. Fister, in his inaugural address, declared that "we will cooperate, to our very utmost, with government officials, legislators and all Americans who are sincerely interested in finding sound, practical solutions to medical care problems—solutions which include both a respect for medical standards and a respect for the taxpayers."

The Distinguished Service Award was presented to Dr. Cecil; Donald D. Van Slyke, Ph.D., research chemist at the Brookhaven National Laboratories, received the first AMA Scientific Achievement Award honoring outstanding contributions to medicine by non-physician scientists. Mrs. George Papanicolaou was given a special award honoring her late husband's service to mankind.

Wednesday Session

Dr. Fister, in his Wednesday address, assured the House of Delegates, all AMA members and the citizens of this country that "during the next year there will be no letup in our campaign to preserve the high standards of our voluntary, free choice, medical care system." He said that no organization, especially one which thrives on challenge and opportunity to serve the public, can be static.

Election of Officers

In addition to Dr. Annis, the new president-elect, the following officers were named at the closing session on Thursday:

Dr. J. P. Culpepper, Jr., Hattiesburg, Miss., vice president; Dr. Norman A. Welch, Boston, re-elected speaker of the House, and Dr. Milford O. Rouse, Dallas, Tex., re-elected vice speaker.

Dr. Charles L. Hudson, Cleveland, Ohio, and Dr. Wesley W. Hall, Reno, Nev., were re-elected to five-year terms on the Board of Trustees. Dr. Elmer G. Shelley, North East, Pa., was renamed to the Judicial Council.

Re-elected to the Council on Medical Education and Hospitals were Dr. Warde B. Allan, Baltimore, and Dr. W. Clarke Wescoe, Lawrence, Kansas.

Dr. George W. Slagle, Battle Creek, Mich., was elected to the Council on Medical Service, succeeding Dr. Robert L. Novy, Detroit, who was ineligible for re-election.

For the Council on Constitution and Bylaws, Dr. Walter E. Bornemeier, Chicago, was re-elected, and Dr. James Monroe Kolb, Sr., Clarkesville, Ark., was named to fill the unexpired term of the late Dr. Walter E. Vest, Huntington, W. Va.

HAROLD C. OCHSNER, M.D.
E. S. JONES, M.D.
FRANCIS L. LAND, M.D.
WALTER L. PORTTEUS, M.D.
JACK E. SHIELDS, M.D.

Reports of Committees

Executive

The first meeting of the Executive Committee for the current year was held on October 26th immediately following the final session of the House of Delegates and the Council meeting. Members present were Dr. Harry R. Stimson, president; Maurice E. Glock, president-elect; John M. Paris, chairman of the Council; Don E. Wood, Irvin W. Wilkens, treasurer; and the executive secretary, Mr. Waggener. By secret ballot, Dr. Don E. Wood was elected chairman of the Executive Committee for the ensuing year.

I am sure that every member of the Executive Committee would agree that the past year has been one of the busiest years in the history of the Executive Committee.

Many matters came before the committee for decision and in addition to routine business we had, of course, the building matter before us most of the year.

In order that the Reference Committee and the House of Delegates may have full knowledge of what the Executive Committee has accomplished during the past year, the minutes of each Executive Committee meeting have been published in *The Journal* and complete copies of these minutes have been given to the members of the Reference Committee for their review.

In view of this, I shall not attempt to be too detailed in the report of the Executive Committee but will highlight some of the activities during the past year.

November 18, 1961 Meeting

Your committee discussed the matter of representation by various component societies and the meetings of the House of Delegates. It was felt the fact that many counties were not represented was the basis for a lot of misunderstanding and misinformation on the part of the membership at large. The committee instructed the secretary to compile a list of all delegates from each of the counties who were present and absent from both sessions of the House of Delegates in October.

The committee authorized the president to sign two contracts on Medicare, one covering the final audit for the contract period ending March 31, 1961 and the other dealing with the reimbursement for advertising costs which may be done under the terms of the contract.

Resolutions for presentation to the American Medical Association meeting in Denver were reviewed and the secretary instructed to forward copies of these resolutions to the American Medical Association.

The committee authorized the chairman of the Executive Committee to write a letter of appreciation to the five doctors comprising the liaison committee of Blue Cross; request them to organize themselves; appoint a chairman from their own group; and report the activities of the Blue Cross board to the Council of the Indiana State Medical Association.

The committee requested Dr. Frank Green to continue his investigation of the proposal to operate the Student Loan Plan through the Indiana National Bank.

The secretary called attention to the action taken by the House of Delegates regarding the association naming a committee to assist Selective Service in the procurement of positions. In accordance with this, the president named Dr. John Owens, Dr. Paul D. Crimm, and Dr. G. O. Larson to this committee to work with the Selective Service organization.

November 26, 1961 Meeting

The November meeting was held in the Denver-Hilton Hotel. At breakfast on November 26th, the members of the Executive Committee and the delegates to the American Medical Association were present.

The meeting was in keeping with the previous action taken in which the Executive Committee was to meet with the delegates to the AMA immediately prior to the session of the American Medical Association House of Delegates for the purpose of discussing resolutions that were to come before the AMA and decide upon what action the association representatives would take. In addition to this, the meeting was for selection of a chairman and spokesman for the delegation. In accordance with this and by ballot, Dr. Harry Stimson, president, was elected chairman of the delegation and Dr. E. S. Jones was elected floor spokesman.

Upon motion by Dr. Glock and seconded by Dr. Ochsner, the committee commended Dr. Stover for his tenure as delegate to the AMA from the Indiana State Medical Association.

The resolutions to come before the AMA and to be presented by the Indiana State Medical Association were discussed and definitive action taken. The delegation was also organized so that a representative from the delegation was to be present at every Reference Committee hearing and report back to the group the actions of the Reference Committee.

It might be said that the Executive Committee, the delegates to the AMA and the alternate delegates met each morning during the AMA sessions at breakfast for discussions on the affairs of the association.

January 13, 1962 Meeting

At this meeting, the chairman of the Building Committee made a progress report on construction and activities of the Building Committee therewith.

Also discussed was the matter of financing the construction of the new property. A committee had been appointed to investigate the possibility of borrowing funds to complete the building. They reported that they had been successful in making arrangements for a loan at 5% over a period of five years, but the loan had to be repaid on monthly installments during the five-year period.

After much discussion, the attorney was asked to prepare a resolution directed for presentation to the Council in which the Executive Committee recommended that the association borrow up to $150,000.00 at 5% to complete the building project.

The committee also had before it three contracts covering the Medicare operation, one dealing with the settlement of the special bank account #1 in order that the association might have released $20,000.00 in securities to be held in escrow to secure this account, the second a contract dealing with fair employment practices and the third dealt with the reporting method required by the department. The president of the association was authorized to sign these three contracts on behalf of the association.

The committee received reports on a proposed travel insurance program which would cover all the officers and committee members of the Indiana State Medical Association while on business for the association. Also discussed was the failure of the American Medical Association to implement a resolution introduced by the Indiana State Medical Association at the Dallas meeting.

Other matters coming before the committee at this meeting were the osteopathic question, the displeasure of a member over the report of the House of Delegates meeting and a discussion with Mr. Guy Spring of Blue Cross insurance concerning the 15-day reconfirmation procedure. Dr. Frank Green also made a report on his discussion with Indiana National Bank concerning the Student Loan program and the committee set Sunday, April 29th as a tentative date for the special meeting of the House of Delegates. Also at this meeting, the Executive Committee decided that complete minutes of all Executive Committee meetings be mailed to all of the councilors of the association so they would have the monthly report regarding matters coming before the Executive Committee.

The committee also had before it the notification from C. E. Pauley & Co., that the cost of printing *The Journal* would be increased again effective January 1, 1962. In a discussion by the editor of *The Journal* concerning the financial picture of *The Journal*, it was voted to request the House of Delegates to allocate another $3.00 to the subscription price.

March 10, 1962 Meeting

At this meeting, in addition to routine business, the committee had before it the renewal of the Medicare contract for the period beginning April 1, 1962 and terminating March 31, 1963.

The committee authorized the purchase of travel insurance which would have the effect of covering all of the officers and all of the members of various committees and commissions in the amount of $50,000.00 for accidental death or dismemberment if suffered while on business for the association. This includes all members of the House of Delegates and others who might be injured or killed in an accident on their way to or from meetings of the association.

At this meeting the committee was informed of the willingness of the Indiana Blue Shield plan to administer a proposed national plan for persons over 65 as proposed by the National Blue Shield commission. Also check in the amount of $43,680.29 was received from the American Medical Education Foundation and was turned over to the Indiana Medical Education Foundation by the university.

The committee took action to write a letter to the governor recommending he reappoint Dr. Paul T. Lamey of Anderson to the Board of Medical Registration and Examination. Also approved was a request of the Indiana Association of Medical Assistants for the association to supply certificates to girls who had completed five years' training in this field.

The committee fulfilled a request of the Indiana Jaycees to give them a physician to work with them in developing health programs for their organization.

A discussion of the Indiana Institute for Medical Assistants also was held. The headquarters staff was instructed to answer any inquiries concerning this organization that the Indiana State Medical Association does not approve, does not sponsor and does not recommend this school.

April 28, 1962 Meeting

At this meeting, the committee planned for the removal of the offices of the Indiana State Medical Association from 1021 Hume Mansur Building to the new building located at 3935 North Meridian shortly after the first part of May.

Also discussed was the necessity of purchasing supplies for the new building such as towels, toilet paper, janitorial services, etc.

The committee authorized the secretary to purchase the necessary supplies and authorized him to enter into a contract with Capitol Maintenance Company for janitorial services in the building.

The financial situation of the association was reviewed at length and arrangements were made for the bank trust department to keep a constant evaluation of the association securities in mind with instructions that any time the securities reach par or showed a profit, they be converted into cash or into better securities.

Many other routine matters were considered by the committee at this particular meeting, one of them was the matter of a doctor's widow and family who needed financial assistance. This matter was turned over to the councilor to make an inves-

tigation and, while no funds were available from the association's sources for this type of assistance, it was agreed that this would be a worthy case were such funds available. The committee heard a report from the editor of *The Journal* in which he pointed out the continuance of carrying professional cards in *The Journal* was a money-losing proposition and referred this matter to the council with the recommendation that professional cards be discontinued.

June 21, 1962 Meeting

The Executive Committee met for the first time in the new offices of the association at 3935 North Meridian for this meeting. Also in attendance at this meeting were the delegates to the American Medical Association from the ISMA as well as section delegates and the chairman of the Building Committee.

Dr. Everly, as chairman of the Building Committee, made his report by taking the members of the Executive Committee on a tour of the completed building and pointing out the various functions and uses of the various departments.

The dedication services for the building were set for Sunday, July 15th, and plans for the dedication ceremonies were outlined at this particular meeting.

Final plans for the annual meeting for the association to be held at French Lick in October also were reviewed and arrangements approved.

The Executive Committee then discussed with the delegates the resolutions to be forwarded to the AMA from the state association as well as resolutions which were knowledgeable at this time that would come before the annual meeting in June. Other matters discussed at this meeting were the forthcoming AMA National Congress on Mental Health and matters dealing with the American Cancer Society, the Student Loan Program and a conference on home care, which would be conducted in the state of Indiana.

June 25, 1962 Meeting

The Executive Committee again met with the delegates to the American Medical Association as well as the alternate delegates in the Palmer House in Chicago for breakfast prior to the opening of the annual session of the American Medical Association. At this meeting routine matters which normally come before the Executive Committee were discussed and dispensed with as well as other developments concerning resolutions and activities in which the Indiana State Medical Association would play a part in the annual meeting of the American Medical Association.

In addition to this meeting on the morning of June 25th, the Executive Committee and the delegates met for breakfast each morning during the AMA session for a discussion of various matters that had developed during the previous day at the AMA meetings.

July 14, 1962 Meeting

The committee heard a report that there was a possibility of the association being able to obtain an exit from the rear of our lot to 40th Street so as to avoid the heavy Meridian Street traffic.

A final review was given on the scientific and entertainment program for the French Lick meeting. The request of the auxiliary of the Allen County Medical Society was approved in which they offered their services in putting on the entertainment program during the convention.

Other matters that came before the committee dealt with mainly routine matters which come before the association and they are thoroughly detailed in the copies of the minutes which are before the Reference Committee.

Mrs. Thomas Johnson, president of the Woman's Auxiliary to the Indiana State Medical Association, met with the committee for a discussion of the program currently being carried out by the auxiliary and sought direction of the Executive Committee in other projects in which the auxiliary might be of assistance to the association.

The time for writing this report for submission to the House of Delegates was such that we could not report meetings past the July 14th meeting. However, the minutes of any meeting of the committee held since the July 14th meeting will be given to the Reference Committee for its review.

DON E. WOOD, M.D., *Chairman*

Medical Defense Activities

1. Malpractice cases. A year ago, at the time of this report, August 1, 1961, the following four cases were pending before the committee, all of which were closed during the year:

Case No. 251—(Closed.) Filed September 25, 1942. Dismissed for want of prosecution. (Expense, $50.00, paid November 17, 1961.)

Case No. 296—(Closed.) Filed April 9, 1957. Case was never tried due to death of plaintiff. Dismissed by the court. (No expense.)

Case No. 301—(Closed.) Filed 1951. Case tried in Circuit Court; judgment for defendant. (Expense, $1,500.00, paid November 15, 1961.)

Case No. 302—(Closed.) Filed July 30, 1957. Case settled. (Expense, $407.15, paid March 10, 1962.)

Threatened suit—By order of the Executive Committee, attorney's fees in the amount of $75.00 in this case were paid March 10, 1962, which disposed of the case.

Since August 1, 1961, and up to August 1, 1962, the following two new cases have been filed and these two cases are pending at the present time as

against four unclosed cases at the same time last year:

Case No. 303—Suit filed September 16, 1961. Pending.

Case No. 304—Suit filed June 20, 1961. Pending.

One threatened suit has been reported to the headquarters office but the formal application for medical defense by the Indiana State Medical Association has not been filed up to this time.

2. Medical Defense Fund Statement from August 1, 1961 to August 1, 1962:

Balance, August 1, 1961		$ 4,334.08
Receipts:		
Dues—1961 members	$ 44.55	
1962 members	4,638.10	
Interest on bonds	605.61	
Matured Treasury Bills	5,000.00	
		10,288.26
Total receipts		$14,622.34
Disbursements:		
Malpractice fees	$2,032.15	
Attorneys' salaries	2,790.00	
Office supplies	9.11	
Discount on U. S. Treasury Bills	13.25	4,844.51
Balance, August 1, 1962		$ 9,777.83
Bank balance, July 31, 1962		$ 1,824.04
Due from General Fund		7,953.79
		$ 9,777.83

Membership Report

	Dec. 31, 1961	July 31, 1961	July 31, 1962	Delinquent	A.M.A., 1962
1st District					
Gibson	15	15	15		14
Perry	13	13	13		13
Pike	4	4	4		4
Posey	11	11	10		10
Spencer	6	6	6		4
Vanderburgh	233	230	233	1	227
Warrick	12	12	11		11
TOTAL	294	291	292	1	283
2nd District					
Daviess-Martin	20	20	19	1	18
Greene	16	16	16		9
Knox	43	43	41		39
Owen-Monroe	53	53	58		53
Sullivan	16	16	15		13
TOTAL	148	148	149	1	132
3rd District					
Clark	33	33	38		37
Dubois	23	23	24		20
Floyd	40	40	40		40
Harrison-Crawford	14	14	13		13
Lawrence	28	28	25		23
Orange	9	9	9		9
Scott	3	3	3		3
Washington	7	7	8		8
TOTAL	157	157	160		153
4th District					
Bartholomew-Brown	44	44	41		40
Dearborn-Ohio	19	19	22		20
Decatur	12	12	12		9
Jackson-Jennings	26	26	24	1	21
Jefferson-Switzerland	28	27	26	1	25
Ripley	9	9	8	2	6
TOTAL	138	137	133	4	121
5th District					
Clay	12	12	13		13
Parke-Vermillion	23	23	23		23
Putnam	16	16	17		17
Vigo	116	113	116	1	116
TOTAL	167	164	169	1	169
6th District					
Fayette-Franklin	18	18	18		18
Hancock	21	21	21		21
Henry	46	46	43	1	43
Rush	15	15	15		15
Shelby	18	18	18	1	18
Wayne-Union	75	75	72		67
TOTAL	193	193	187	2	182
7th District					
Hendricks	19	19	20		20
Johnson	33	32	30	1	30
Marion	1078	1078	1044		1041
Morgan	16	16	15		14
TOTAL	1146	1145	1109	1	1105
8th District					
Delaware-Blackford	116	105	112	2	105
Jay	16	16	19		17
Madison	106	104	104	2	100
Randolph	22	22	22		17
TOTAL	260	247	257	4	239
9th District					
Benton	10	9	9	1	8
Boone	18	18	18		18
Clinton	20	20	19		19
Fountain-Warren	16	15	16		16
Hamilton	24	24	25	1	19
Montgomery	29	28	26	1	26
Tippecanoe	114	114	117	1	116
Tipton	11	11	11		11
White	11	11	12		12
TOTAL	253	250	253	4	245
10th District					
Jasper-Newton	12	12	12		12
Lake	427	414	417	16	388
Porter	28	28	29		29
TOTAL	467	454	458	16	429

	Dec. 31, 1961	July 31, 1961	July 31, 1962	Delinquent	A.M.A., 1962
11th District					
Carroll	10	10	9		9
Cass	42	41	40	1	38
Grant	67	67	67	1	66
Howard	55	55	59		59
Huntington	23	22	24		23
Miami	15	15	14	1	13
Wabash	25	25	26		25
TOTAL	237	235	239	3	233
12th District					
Adams	15	15	14		14
Allen	268	263	271		270
DeKalb	22	22	19		19
LaGrange	9	9	10		10
Noble	18	18	16		16
Steuben	15	15	14		14
Wells	30	30	35		36
Whitley	17	17	21		21
TOTAL	394	389	400		400
13th District					
Elkhart	105	105	109	1	106
Fulton	9	9	11		11
Kosciusko	17	17	17		17
LaPorte	95	95	94	2	92
Marshall	22	22	26		25
Pulaski	7	7	6		6
St. Joseph	229	227	232	3	232
Starke	6	6	6		6
TOTAL	490	488	501	6	493
SUMMARY					
1st District	294	291	292	1	283
2nd District	148	148	149	1	132
3rd District	157	157	160		153
4th District	138	137	133	4	121
5th District	167	164	169	1	169
6th District	193	193	187	2	182
7th District	1146	1145	1109	1	1105
8th District	260	247	257	4	239
9th District	253	250	253	4	245
10th District	467	454	458	16	429
11th District	237	235	239	3	233
12th District	394	389	400		400
13th District	490	488	501	6	493
TOTAL	4344	4298	4307	43	4184

The Journal

Advertising

This is a comparative report for the first six months of each year indicated.

State Journal Advertising Bureau	1959	1960	1961	1962
	$40,978.58	$33,314.83	$23,697.85	$21,538.08
Sold Direct by Journal	3,083.18	2,501.98	1,976.08	2,013.00
Total	$44,061.76	$35,816.81	$25,673.93	$23,551.08

Printing Cost

Year	Cost	No. of Pages (Inserts excluded)
1958	$50,093.16	1872
1959	63,841.30	2243
1960	62,679.13	2222
1961	49,539.57	1868
1962 (6 months)	25,672.03	940

Year	Reading	% Reading	Adv. Pages	% Adv. Pages	Total Pages	Adv. Pages per Issue
1957	910	51	862	49	1772	147.7
1958	1055	52	969	48	2624	169
1959	1226	53	1088	47	2314	192.9
1960	1413	61	919	39	2332	194
1961	1284	67	634	33	1918	160

EXECUTIVE COMMITTEE

Don E. Wood, M.D., *Chairman*
Wendell E. Covalt, M.D.
John M. Paris, M.D.
Harry R. Stimson, M.D.
Maurice E. Glock, M.D.
Irvin W. Wilkens, M.D.

Grievance

The Grievance Committee held meetings on October 26, 1961, and February 11, 1962. As of July 15, 1962, 11 cases had been considered during the fiscal year and 5 cases had been closed.

The same plan of action followed for the past three years that evolved over the several preceding years has resulted in a decrease in the number of complaints that are necessarily adjudicated at the state level. In short, we are pleased to report that an increasing percentage of complaints are resolved at the first level which this committee encourages, namely, in a personal contact between the complainant and the physician concerned. Failing in this, the County Medical Society is asked to assume adjudication and only should this fail or be waived does the ISMA Grievance Committee assume efforts at adjudication. One additional modification in our procedure has developed this year which is in full accord with the rules and procedure for this Committee. We have in the recent past assumed approval for referring a copy of the complaint to the physician named whenever such inference could be drawn. We now ask that this approval be forwarded in writing. The usual wording in our letter to complainants is as follows: "The Grievance Committee which makes investigation such as you request follows the code of justice of our Country. This provides that the person

against whom a complaint is lodged has the right to defend himself. To this end it is necessary that he be acquainted with the complaint and the identity of the person making the complaint. We must, therefore, await receipt of your written permission to contact ———— M.D. before proceeding in this matter." This has reduced the number of complaints that are acknowledged and referred or that are ultimately the concern of our Committee.

The June, 1962, AMA House of Delegates approved a change in the Bylaws Chapter IV, Section 1 (B) to read as follows: "In addition to such disciplinary action as may be taken under the Constitution and Bylaws of the component society and constituent association to which a member belongs, or when a State Medical Association to which a member belongs, requests the AMA to take disciplinary action, or when at the request of the American Medical Association the State Association to which the member belongs consents to disciplinary proceedings by AMA, the Judicial Council, after due notice and hearing, may censure him, or may suspend or expel any member of the American Medical Association from AMA membership only for an infraction of the Constitution or these Bylaws or for a violation of the Principles of Medical Ethics."

This change accords essentially with a major recommendation contained in the Supplemental Report rendered by this Committee to the ISMA House of Delegates in October, 1961, and approved by that meeting. This action of the AMA House of Delegates only serves to emphasize the responsibility of county medical societies in the important medical discipline aspect of public relations. The ISMA Grievance Committee wishes to work closely with every county medical society in the discharge of this function in behalf of all ISMA members. A resolution (published in *The Journal* and Handbook) will accordingly be presented to the ISMA House of Delegates, which requests that county medical society secretaries inform this Committee of any important disciplinary actions.

The members of the Grievance Committee thank the members of the ISMA who have so promptly cooperated with us during the past year as we have attempted to meet our assigned responsibility.

Finally, we wish to pay tribute to the late Dr. Russell J. Spivey, who served faithfully and effectively on this Committee until his death.

PHILIP B. REED, M.D., *Chairman*
M. C. TOPPING, M.D., *Vice-Chairman*
EARL W. MERICLE, M.D., *Secretary*
RAYMOND E. NELSON, M.D.
MARVIN L. McCLAIN, M.D.
GUY A. OWSLEY, M.D.
H. A. MILLER, M.D.
LOWELL H. STEEN, M.D.
PAUL STIER, M.D.

Student Loan

Financial report on the Student Loan Fund, established by the House of Delegates in October, 1955, follows:

Funds transferred from General Fund, as authorized by the House of Delegates		$40,000.00
Payment on notes		12,407.81
Interest on notes		565.24
Miscellaneous income:		
Memorial donations	$ 26.00	
Donations from E. S. Jones, M.D.	217.03	
Interest on U. S. Treasury Bills	270.51	513.54
TOTAL RECEIPTS		$53,486.59
Expenditures:		
Printing	$ 211.54	
Loaned to students	$52,808.36	
TOTAL EXPENDITURES		$53,019.90
BALANCE IN FUND, JULY 31, 1962		$ 466.69

A total of 127 loans have been granted to 102 students;
78 students have received 1 loan each;
23 students have been granted 2 loans each;
1 student has received 3 loans.

As of July 31, 1962, 18 recipients of loans have repaid their loans in full; 11 have made partial payments.

The interest rate on loans granted prior to October 15, 1958, is 3½%; starting October 15, 1958, the rate was increased to 6%. In October, 1960, the House of Delegates authorized a 2% interest rate. Interest on loans begins on completion of internship.

In order to afford as many students as possible the benefit of the Student Loan Fund it is the policy of the Committee to contact loanees for repayment of loans, plus interest, as soon as the economic status of these individuals is such that they can properly be expected to meet such obligations.

Your Committee, in the main, has been impressed with the caliber of the students applying for loans, and it is felt, with perhaps only two or three exceptions, that the funds advanced have been used advantageously and have resulted in a continuation of study for many students.

JAMES O. RITCHEY, M.D., *Chairman*
HARRY R. STIMSON, M.D.
IRVIN W. WILKENS, M.D.
JOHN D. VAN NUYS, M.D.
K. O. NEUMANN, M.D.
LESTER D. BIBLER, M.D.
ROBERT HOLLOWELL, *Attorney*

Reports of Commissions

Constitution and By-Laws

The Commission on Constitution and By-Laws has met during the past year and considered various requests and suggestions which have been made to it and find there are many ambiguities and conflicts in the present Constitution and By-Laws, and, therefore, desires to present the following Resolution as a part of this report:

RESOLUTION

WHEREAS, over the years various sections of the Constitution and By-Laws have been amended and there are instances where there is a lack of clarity and possible conflicts between certain provisions; and

WHEREAS, the Constitution and By-Laws should be studied as a whole and a codification thereof prepared for presentation to the next regular meeting of the House of Delegates;

BE IT RESOLVED, That the Commission on Constitution and By-Laws make a study of the Constitution and By-Laws of this Association and prepare a codification thereof for presentation to the next regular meeting of the House of Delegates. That in preparing such codification such Commission endeavor to prepare the same without material change in substance, and where there are ambiguities or possible inconsistencies, that it clarify and resolve the same as near as may be done in accordance with the way in which this matter is now being handled or interpreted.

It has been suggested that the Constitution and By-Laws be amended to more adequately clarify the requirements for active membership in the State Association. Therefore, we propose the following:

BE IT RESOLVED, That Sec. 2 of Article IV of the Constitution of the Indiana State Medical Association be amended to read, as follows:

"Sec. 2. Active Members. The Active Members of this Association shall be the members of the component county medical societies, who hold an unlimited license to practice medicine, which is in full force and effect; provided, however, that each is a citizen of the United States of America or has filed his declaration of intention to become a citizen and his first citizenship papers are in full force and effect. No person shall be qualified for membership in a county society who is not qualified for membership in the Indiana State Medical Association and no county medical society shall grant active membership therein on a basis that does not include membership in the Indiana State Medical Association."

BE IT RESOLVED, That Sec. 3 of Chapter I of the By-Laws of the Indiana State Medical Association be amended to read as follows:

"Sec. 3.—No person whose license to practice medicine has been suspended or revoked or who is under sentence of suspension or expulsion from a component society, or whose name has been dropped from its roll of members, shall be entitled to any of the rights or benefits of this Association or of a component county society, nor shall he be permitted to take part in any of their proceedings until he has been relieved of such disability."

G. O. LARSON, M.D.,
Chairman
GORDON S. FESSLER, M.D.,
Vice-Chairman
JOHN B. CLEVELAND, M.D.,
Secretary
WILLIAM B. CHALLMAN, M.D.
DILLON GEIGER, M.D.
RICHARD H. WOOLERY, M.D.
A. W. CAVINS, M.D.
HOWARD E. SWEET, M.D.
JOSEPH F. FERRARA, M.D.
GLYNN A. RIVERS, M.D.
WILLIAM M. SHOLTY, M.D.
LOWELL J. HILLIS, M.D.
HAROLD NUGEN, M.D.
ROBERT M. HANSELL, M.D.

Legislation

A major effort of your Commission on Legislation during the past year has been devoted to programs of public education and enlightenment concerning the threat to the medical profession and this nation's entire free enterprise system engendered by proposals to finance medical care of the aged via the Social Security mechanism.

It is a distinct understatement to say the Commission has been gratified by the response to its appeals to physicians and the citizenry in general in the campaign against enactment of the King-Anderson Bill or counterparts.

At the same time the Commission would be derelict in its duty if it did not sound a clear warning that the "war" has certainly not been won —actually medicine and its allies merely were victors in a skirmish. For proof of that we have the word of President Kennedy and other administration leaders that the issue of medical care for the aged through Social Security will be back as strong as ever when the 88th Congress convenes in January.

Moreover, those senators who voted against the administration's measure have been threatened with political reprisal as well as members of the House of Representatives who were aligned against King-Anderson.

This is no idle threat on the part of the national administration, we might add, and evidence is

mounting that so-called "medicare" will be the prime domestic issue in the 1962 elections.

With these points in mind, your Commission again appeals for the same outstanding and splendid support at the grass roots as evinced in recent weeks and months. We strongly urge that all members, their families, patients and friends work and work hard in the 1962 elections to insure Indiana's representation in Congress by concerned men dedicated to this country's founding principles and opposed to more and more welfare statism with heavier and heavier tax burdens.

We urge active work by you—all of you—at the precinct level in the party of your choice, because it is here that the "winner of the war" will ultimately be decided.

In brief retrospect, concerning the recent Indiana program of public information against the King Bill, we are proud to report that Hoosiers led the nation in the matter of submitting resolutions, petitions, letters, telegrams and telephone calls to our Congressional delegation.

None of this, of course, would have been possible without your concern, without your help. "Town meetings" were held in many, many communities to inform the people of the true issues hidden in the King Bill. Many physicians made upwards of 25 appearances before various civic and community groups.

But the doctors were not alone. We had the invaluable help and guidance of a multitude of organizations and individuals and without this effort we are convinced that the program would not have succeeded to the extent that it did.

Your Commission was gratified that through efforts initiated by ISMA, the regulations governing hospitalization of the indigent aged were altered to enable payment of hospital charges on a retroactive basis by county departments of public welfare. Federal regulation governing these changes will become effective on September 30, 1962.

Heretofore if an indigent aged person was admitted to a hospital after a county welfare board met it was not possible for the board to make payment until approval at its next meeting. Oftimes this resulted in hardship for men and women needing help. As now amended, the regulation carries a 90-day retroactive clause.

This is a major helpful adjunct to the "medical only" provision of the welfare department whereby eligible aged persons may obtain funds for health services even though they do have sufficient resources for food, clothing and shelter. "Medical only" provisions in the welfare law were provided by the 1961 General Assembly, largely as a result of activities by your Commission.

The biennial session of the General Assembly will be underway again in 1963, bringing with it manifold problems concerning many aspects of medicine and the health professions. We urge that each physician become well acquainted with the state legislators from his home area so that an effective liaison may be established.

Insofar as specific items of state level legislation are concerned, your Commission will be interested in the following from the state level:

If a majority of physicians, as their will is expressed through the House of Delegates, favor measures to provide for permissive legislation for the corporate practice of medicine, action of that nature will be undertaken.

The possibility of legislation to provide for placement of a physician as a member of tax-supported county hospital boards.

Continued activity with allied and ancillary groups on the matter of provision of seat belts in automobiles to reduce the number of traffic deaths and injuries.

We would like to say that Commission members have been in close contact with the various medical specialty groups to determine their respective fields of interest in the legislative area.

It is the feeling of your Commission that it would be beneficial to call a state-wide meeting of representatives of all county medical societies during latter phases of the legislative session in order that first hand information could be presented. This type of grass roots liaison is most valuable.

Your Commission, as in the past, will keep you informed regarding the various legislative matters having to do with the profession at all levels of government—and again we ask for your help and cooperation.

Without your understanding, your concern and your dedication, all efforts for the betterment of the profession would avail nothing.

Thank you so much!

DON E. WOOD, M.D., *Chairman*
JOE M. BLACK, M.D., *Co-chairman*
JOSEPH G. S. WEBER, M.D., *Secretary*
P. J. V. CORCORAN, M.D.
HAROLD MANIFOLD, M.D.
DONALD KERR, M.D.
LESLIE M. BAKER, M.D.
PAUL R. TINDALL, M.D.
MALCOLM SCAMAHORN, M.D.
PAUL T. LAMEY, M.D.
LEE J. MARIS, M.D.
PHILIP ROSENBLOOM, M.D.
DONALD K. WINTER, M.D.
EUGENE F. SENSENY, M.D.
OTIS R. BOWEN, M.D.

Public Information

I. King-Anderson Bill vs. "Medical Only" Clause.

The committee asked that each member of the State Association familiarize himself with the features of the King-Anderson Bill and the "medical only" clause which is an expansion of the Old Age

Assistance Program in Indiana. Indiana adopted the intent of the Kerr-Mills Bill by adopting the "medical only" clause which went into effect January the first, 1962. Each physician should work with the Department of Public Welfare in order that the needy senior citizen fully understand the features of the "medical only" clause.

II. Future Doctors Clubs.

Because of the shortage of physicians and the decreased number of students seeking medicine as a career, we are asking each county medical society to work with promising junior and senior high school students in an effort to interest them in medicine, or allied professions. Marion County, Madison County and St. Joseph County are but three of many societies which have initiated a program to attract outstanding high school students to a career in medicine.

III. Continued participation in Science Fair activities, including the defraying of expenses of local representatives to the National Science Fair, is most desirable.

IV. State Fair Exhibits.

The Commission, with the assistance of the AMA Bureau of Exhibits, is presenting, annually, an educational exhibit at the State Fair.

Members of the Woman's Auxiliary of the Marion County Medical Society serve as attendants to these exhibits and medical students will be available to record blood pressure readings of visitors who wish such. Last year, over twelve thousand viewed our exhibit.

V. Medical Assistance Program.

Indiana University, through its extension centers, is conducting a training program for medical assistants. The program consists of a non-credit college level course, consisting of six subjects, and is given one night weekly. The Commission is furthering this program by giving it adequate publicity and support.

WILLIAM G. BANNON, M.D., *Chairman*
HARRY G. BECKER, M.D., *Vice-Chairman*
GLEN McCLURE, M.D., *Secretary*
R. L. KLEINDORFER, M.D.
B. E. SUGARMAN, M.D.
HARRY R. BAXTER, M.D.
WILLIAM R. TINDALL, M.D.
HOWARD FAUST, M.D.
JAMES M. KIRTLEY, M.D.
FRANKLIN F. PREMUDA, M.D.
R. M. HUMMEL, M.D.
NAF H. GLADSTONE, M.D.
RICHARD W. HOLDEMAN, M.D.
T. D. ARMSTRONG, M.D.
ALBERT A. FISCHER, M.D.

Governmental Medical Services

The Commission on Governmental Medical Services met immediately following the annual meeting for organization and discussion. They have held three meetings during the past year with an average of 70% attendance.

During the year several consultants were called in for discussion with the Commission, they being Drs. Andrew Offutt, Frank M. Hall and E. B. Haggard, Director of Vocational Rehabilitation. Dr. Haggard was called in regard to the repeat examination for Social Security disability applicants which was presented by the Montgomery County Medical Society. In correspondence with Washington, and discussion with Dr. Haggard, we find there are probably 40 to 60% repeat examinations; however, these are to be done by the nearest qualified individual. Actually, we do not feel that a satisfactory answer was obtained to this problem and further consideration should be given to this during the next year.

The Commission has been active in many fields. This activity shall be presented, according to division of sub-committees.

1. Civil Defense

This Committee was represented at the annual fall meeting of the AMA for County Medical Societies on Disaster Medical Care held in Chicago, and was represented at the Civil Defense meeting which preceded the AMA meeting in Chicago.

The annual meeting sponsored by this Committee on Civil Defense was held May 13 in the Civil Defense Shelter, under the new State Office Building in Indianapolis. The theme of this meeting was the assumption that while it is not likely that this country will ever be subjected to a nuclear attack, it is not impossible. Also, that if the civilian population is properly prepared for such an attack we can survive it, come out of shelters after attack to go on to defeat the communists and restore our great country.

The first talk was on the *Shelter Program.* This is endorsed by many on the basis that it is preventive medicine. It is estimated that a complete program would reduce casualties from 30 to as low as three percent. We recommend that this program be on a pay-for-it-yourself basis as nearly as possible and that both community and individual family shelters be considered. We recommend that along with the Shelter Program, the government expedite the manufacture for sale to civilians of the private warning system which screws into electric systems to give early alarm of an attack, also of cheap gas detection outfits, gas masks, filter boards, etc.

The second talk was on the Medical C. D. Self Help program which we also endorse. This series of lectures is intended to teach people to take care of themselves as far as ordinary medical problems are concerned during the period while people are

in shelters and for possibly a month or so afterwards when usual medical care is not available. Our State Medical Association has not been consulted by the State Director of Civil Defense, nor has the Indiana State Board of Health. We have attempted to arrange a meeting with him; however, have been unsuccessful to date. The United States Public Health Service has assured us that the medical associations of the various states should definitely be consulted in regard to this program. We shall continue our efforts to achieve this end. Along with this we recommend a step up in smallpox vaccinations and other inoculations which would help to control communicable disease during and after attack.

The third talk was on, "The Overall Plan for Medical Services in Nuclear Attack." There is, and has been, an overall plan which definitely needs revision and utilization. In this connection we urge the stockpiling of more supplies and equipment for existing stored 200-bed hospitals, also that more hospitals be assigned to Indiana for storage. There should be increased utilization of the training hospitals available and further training hospitals should be assigned to this state.

The other talks had to do with upgrading the abilities of dentists, veterinarians, nurses and other allied medical personnel so that their abilities could be used to the greatest possible advantage in a nuclear attack.

It is recommended that this sub-committee name be changed to Committee on Disaster Preparedness.

2. Medicare

The Subcommittee on Medicare has reviewed about 500 claims during the past year. This represents a small percentage of the claims filed. These were primarily claims that could not be understood and classified by the lay employees of the Indiana State Medical Association or cases where the fees billed were so out of line with the usual charges for that procedure that they could not be covered by the Indiana State Medical Association contract on Medicare with the federal government. A few of the claims reviewed were for unusual but recognized procedures which were not included in the government coding supplied by the Office for Dependents Medical Care. These were forwarded to Washington with recommendation for payment of a reasonable fee.

Evidently, many Indiana physicians still feel that they have the right to collect the difference at law between the fee paid by the government under the Medicare program, and the fee they have charged their patients. This is illegal and could lead to federal prosecution. We, therefore, urge all physicians before they take legal steps, to consult with the Indiana State Medical Association on its legal counsel.

3. Mental Health Committee

1. Meetings of the Governor's Advisory Council on Mental Health have been attended during the past year. Two matters of major importance to the medical profession have come up.

(a) The proposition that a Business Administrator should be the acting head, or superintendent, of our state mental hospitals has been advanced by the Governor and by the American Federation of State, County and Municipal Employees. This plan would make the medical superintendent an assistant, or in a secondary role. It might also bring partisan politics into the set up.

An attempt may be made in the next legislature to make lay superintendents in mental hospitals. Recommend to legislature committee that they be on alert for such measure and use influence to counteract such a move.

It is believed the State Medical Association should take a militant stand in resisting such a change in the administrative organization of our state mental hospitals.

(b) The superintendents of our state mental hospitals have been unable to fill vacancies on their authorized medical professional staffs. Because of this they would like to have the authority to use well qualified foreign psychiatrists, such as Cuban psychiatric professors, etc. Foreign doctors can not be licensed in Indiana, at present, until they have acquired citizenship in addition to meeting professional qualifications.

Approval to seek a short cut for the utilization of qualified foreign doctors in our state mental hospitals was requested of the Council of the Indiana State Medical Association, but was disapproved.

The State Medical Association should assist in some way the state mental hospitals in filling their authorized medical staffs.

2. A preliminary meeting regarding preparation for the Congress on Mental Health was held by the Council on Mental Health in Chicago during February, 1962. Dr. Earl Mericle, of Indianapolis, and Dr. Glen Ward Lee, of Richmond, attended this meeting.

3. The Tri Kappa Sorority continues to give financial support to the Committee for Care of Mental Patients in general hospitals of the Indiana State Board of Health, for continuing education of nurses in mental health nursing and to encourage establishment of psychiatric beds in general hospitals. They are to be commended.

4. The Council on Mental Health of the American Medical Association is having a congress to enunciate the new policy of the American Medical Association with regard to mental illness and health.

This congress will be held in Chicago, October 4-6, 1962, and is to be attended by a steering committee from the Indiana State Medical Association and similar committees from the Indiana Association for Mental Health and the Indiana Psychiatric Association, together with invited representatives of allied and interested organizations or groups.

Briefly stated the purpose of this congress, held with the cooperation of the American Psychiatric Association and the support of the National Association for Mental Health, is to implement the broad, new mental health program developed by the AMA's Council on Mental Health. This program represents years of study and discussion and draws heavily upon sources such as *Action for Mental Health*, the AMA's Preliminary Conference on Mental Illness and Health, and meetings with the chairmen of the AMA's State Committees on Mental Health.

Since the congress will be convened just before the 1962 State Medical Association Convention, a supplemental report, on the congress, will be made to the House of Delegates.

4. Crippled Children and Rehabilitation

The Commission was pleased to have Dr. F. M. Hall, who is medical director of the crippled children's program, present at two of our meetings to brief us on this program. The sub-committee has examined this porgram in detail and feels that the Indiana state program is a good one. It was discussed with Dr. Hall, the possibility of the commission being represented at the next planning session which occurs every three years and Dr. Hall felt that this would be entirely feasible. There will be continued liaison between this sub-committee and Dr. Hall.

5. Liaison with Department of Public Welfare

There has been considerable liaison between the Commission and the Indiana State Department of Public Welfare. In December, 1961, a meeting was held for a briefing on the "medical care only" portion and welfare program. This was a program implemented in the last state legislature and although Mr. Kelly felt there would be 5 to 6,000 persons covered annually, there are now at the present time only about 700 recipients. It is felt that if Indiana is to be one of those states in which the Kerr-Mills Act is to be fully supplemented that the legislative commission should actively work for the necessary legislation.

Over the past four years your commission has asked repeatedly for an advisory committee to the State Department of Public Welfare. We have recently received word from Mr. Kelly, the Director of the Indiana State Department of Public Welfare, accepting this recommendation and such committee shall be appointed in the near future. There is need for and shall be continued liaison between the Indiana State Medical Association and the Indiana State Department of Public Welfare.

6. Liaison Committee on Veterans Affairs

There have been quarterly meetings of this group, which involves the Indiana State Hospital Association, Indiana State Dental Association, American Legion and the Indiana State Medical Association. The Indiana Pharmaceutical Association may be invited to become affiliated.

There have been many discussions considering the admission of non-service connected disability patients to Veterans Administration Hospitals and there is a study being done at the AMA level at the present time.

However, it is very interesting to note many of these cases are referred by physicians. It is recommended that each member of the Indiana State Medical Association consider carefully before referring any person to Veterans Administration Hospital unless he has a definite service connected disability.

There has been a new form which has been tried out and appears successful which requires the applicant for admission to give a financial statement. This is a step in the right direction if only the admitting personnel will make clear the meaning of the oath taken by the applicant.

It is recommended that continued affiliation with this Liaison Committee be approved.

7. Veterans Medical Care

The Veterans fee schedule was approved as is for the present year; however, there is a committee actively engaged in reviewing this with the possibility of revision prior to the next contract period.

The commission wishes to thank the staff of the Indiana State Medical Association for their cooperation and advice and to thank the House of Delegates for the privilege of serving them this year.

CHARLES R. ALVEY, M.D., *Chairman*
JEAN V. CARTER, M.D., *Vice-Chairman*
T. J. BRUEGGE, M.D., *Secretary*
GEORGE WILLISON, M.D.
JACK McKITTRICK, M.D.
THOMAS FOUNTAINE, M.D.
HERMAN ECHSNER, M.D.
V. EARLE WISEMAN, M.D.
GLEN WARD LEE, M.D.
ARVINE POPPLEWELL, M.D.
ROBERT E. WILLIAMS, M.D.
EDWARD J. DIEROLF, M.D.
GEORGE D. BUCKNER, M.D.
WILLIAM J. CRON, M.D.
STANLEY W. BURWELL, M.D.

Public Health

During the current year, the Commission on Public Health has held three formal meetings. Various subjects have been discussed which were referred to the Commission.

One of the questions upon which the Commission has acted, as a Committee of the whole, was the preliminary report of the representatives of the Neuro Psychiatric Department of the Indiana University Medical School and Hospitals regarding expansion of Neuro Psychiatric care and consultation, especially for children.

Also, particular attention was given to the prob-

lem of Poison Control Centers, following a report of Dr. Harvey, from the State Board of Health.

The reports of the various committees in the Commission have been heard and discussed from time to time.

A continued close liaison has been maintained by the Commission on Public Health, with the various voluntary and governmental agencies and health facilities.

About the same committee structure has been maintained during the past year.

A final meeting for the year's work of the Commission is anticipated for early September.

Committees of the Commission reporting are as follows:

Committee on Industrial Medical Practices and Programs

During the current year the Committee on Industrial Medical Practices and Programs has held four meetings. An attempt has been made to continue liaison with voluntary and governmental agencies and in other areas interested in, or pertaining to, industrial health.

The definite projects for the year of 1962 upon which emphasis has been placed were as follows:

1. Cooperation with the Governor's Workman's Compensation Committee in proposed Workman's Compensation Law changes.
2. Worked for sane decisions based on medical facts in so-called heart injuries and diseases as they might relate to the Workman's Compensation and Occupational Disease Laws.
3. Worked toward a clear definition of Occupational injuries and diseases in the Workman's Compensation and Occupational Disease Laws.
4. Prepared ourselves to offer assistance in the establishment of Noise Loss Legislation, should such legislation be proposed.

The Committee would suggest a continuance of these projects.

RICHARD C. SWAN, M.D., *Chairman*

Traffic Safety Committee

The Traffic Safety Committee, during the past year, has continued in a sincere effort to coordinate with county and state officials in their safety programs. Attention has been called to hazards of the highway, safe driving practices and safe automotive equipment. In the latter instance, particular urgency has been placed on the use of safety belts—inspection of cars to insure proper signals, brakes and lights. The Committee again urged participation in the Indiana Traffic Safety Foundation.

HOWARD T. HAMMEL, M.D., *Chairman*

Committee on Conservation of Hearing and Vision

The Committee on the Conservation of Hearing and Vision has had two meetings, although no specific questions have been referred to it.

A review of the present legal status of the noise problem in industry has been made.

It is hoped that further consideration may be given to realistic protection from injury, as well as conservation of vision in children.

It seems that there should be further expansion of the activities of this Commission with voluntary and governmental agencies and any group concerned with visional, or hearing aids.

WILLIAM BAUGHN, M.D., *Chairman*

Committee on Rural Health and Physician Placement

The Committee on Rural Health and Physician Placement carried on its usual activity with regard to farm magazine publications, as furnished by the American Medical Association.

The physician placement again this year was run very efficiently by the Indiana State Medical Association office.

The Committee held the annual Junior-Senior Day at the Columbia Club, with approximately fifty percent of the students attending. The idea of Junior-Senior Day is to impress all the students with the opportunities of rural practice in the State of Indiana.

The students were given addresses concerning Ethics, Physician Placement, Rural Practice and Insurance.

This was well received by the students and it is felt that the money spent here for education is well worth the Association's effort.

EUGENE S. RIFNER, M.D., *Chairman*

Committee on Preventive Medicine and Liaison with State Board of Health

In accordance with the recommendations concerning tuberculosis, adopted by the Council of the Indiana State Medical Association, Dr. Offutt appointed a Coordinating Committee for the Eradication of Tuberculosis in Indiana. Dr. Richard Swan was elected Chairman of this Committee, and the Indiana State Medical Association is well represented on the various sub-committees and several meetings have been held by the Committee and its subcommittees.

The Poison Control Committee held a meeting and drew up a draft of a workable plan for Treatment and Information Centers, which is not yet available for a final report to the Commission.

The Committee on Preventive Medicine and Liaison with State Board of Health recommended that the Resolution regarding Antipoliomyelitis Vaccine, adopted by the House of Delegates of the American Medical Association in December be accepted and approved by this Commission. This Resolution recommended that these vaccination programs be left to the local levels of the state and county societies.

GERALD F. KEMPF, M.D., *Chairman*

Conclusion

It seems that members of the Commission are generally of the opinion that, essentially, the same

organizational structure should be continued in the coming year.

It seems probable that more ex-officio members should be brought in to assist the committees in their various fields. This seems important because of the apparent, ever increasing emphasis upon some of the phases of public health by both the professional and lay groups. In order to meet this situation, it seems at times very desirable to be able to bring into the Commission for consultation and advice, doctors, or laymen, who may have had special experiences in these respective fields.

EMMETT B. LAMB, M.D., *Chairman*
RICHARD C. SWAN, M.D., *Vice-Chairman*
A. BERNIECE WILLIAMS, M.D., *Secretary*
ARNOLD W. BROCKMOLE, M.D.
RALPH O. SMITH, M.D.
HOWARD T. HAMMEL, M.D.
B. A. RANCK, M.D.
GERALD F. KEMPF, M.D.
JOHN A. DAVIS, M.D.
JOHN B. HICKAM, M.D.
LOWELL W. PAINTER, M.D.
FORREST J. BABB, M.D.
JACOB FLEISCHER, M.D.
E. S. RIFNER, M.D.
JOHN P. TURNER, M.D.
C. X. McCALLA, M.D., *Ex-Officio*
ANDREW C. OFFUTT, M.D., *Ex-Officio*
WILLIAM BAUGHN, M.D., *Ex-Officio*
FRANKLIN S. CROCKETT, M.D., *Ex-Officio*
H. GLENN GARDINER, M.D., *Ex-Officio*
JAMES D. TAYLOR, M.D., *Ex-Officio*

Voluntary Health Agencies

The Commission on Voluntary Health Agencies held its organizational meeting, as directed, on Oct. 26, 1961, and elected the following Commission officers: Norman R. Booher, M.D., Chairman; Herbert O. Chattin, M.D., Vice-Chairman, and Anne S. Nichols, M.D., Secretary.

Budget for nine hundred dollars ($900.00) was requested and later approved.

The members of this Commission for 1961-1962 are:

(1st Distr.) Virgil McCarty, 113 South Main St., Princeton

(2nd Distr.) Herbert O. Chattin, 729 Main St., Vincennes

(3rd Distr.) Kenneth H. Brown, 4103 East Spring, New Albany

(4th Distr.) Robert Acher, 221 East Washington St., Greensburg

(5th Distr.) Anne S. Nichols, 707 East Seminary, Greencastle

(6th Distr.) Lucian A. Arata, 327 West Broadway, Shelbyville

(7th Distr.) Norman R. Booher, 447 East 38th St., Indianapolis

(8th Distr.) A. H. Ridgeway, Lapel

(9th Distr.) John C. Carney, 116 North Illinois, Monticello

(10th Distr.) Walfred A. Nelson, 559 South Lake, Gary

(11th Distr.) Wendell Ayres, 500 Wabash Ave., Marion

(12th Distr.) Franklin Bryan, 512 Medical Center Building, Fort Wayne

(13th Distr.) Robert A. Fargher, 811 Jefferson Ave., LaPorte

(At Large) James Gosman, 2901 North Meridian St., Indianapolis

(At Large) Wendell A. Shullenberger, 1815 North Capitol Ave., Indianapolis

The second meeting of the Commission was held on Nov. 12, 1961. At this time it was called to the attention of the Commission that the AMA has a Committee on Voluntary Health Agencies which was formed in June of 1961 to study similar problems on a national scale that have been under study in Indiana.

At this meeting, Dr. Stimson, President, indicated his desire for the Commission to proceed along the line of previous years to attempt to bring the plans to completion for some type of regulation of the voluntary health agencies of this State by organized medicine.

The Chairman reviewed the work of the Commission for the previous year for new members of the Commission and at this meeting the Commission consulted with Mr. Robert Patty, Executive Secretary of the Indiana Heart Foundation. Mr. Patty had cooperated all the previous year with the Commission in the attempt to form a Council of Voluntary Health Agencies in this State which would be an organization of all of these agencies into their own Council for purposes of self-analysis and regulation. At this time Mr. Patty indicated acceptances by these agencies of the Criteria of the Indiana State Medical Association for voluntary health agencies, as attached to this report. As will be noted in the previous annual report this criteria resolved from study of material already published by the AMA in their Handbook for Medical Societies and Individual Physicians on National Voluntary Health Agencies in Dec. 1959.

A preliminary discussion took place of the questionnaire submitted by Mr. Patty and several other executives of the voluntary health agencies which they felt would be appropriate to supply this Commission with the necessary information on each agency in its consideration under the criteria established. The Commission made several minor changes in this questionnaire which were agreed to by Mr. Patty. At this meeting the voluntary organizations were listed as those voluntary health agencies in this State which would form the nucleus for consideration of these agencies by this Commission: American Cancer Society, Indiana Division, Inc., Evansville Epilepsy League, Inc., Independent Cancer Units — Allen County Cancer

Society, Inc., Cancer Society of Henry County, Inc., Community Cancer Unit of Grant County, Inc., Fayette County Cancer Fund, Marion County Cancer Society, Inc., Cancer Society of Elkhart County, Cancer Society of St. Joseph County, Indiana Association for Mental Health, Inc., Indiana Chapter, National Multiple Sclerosis Society, Indiana Health Foundation, Inc., Indiana Heart Association, Inc., Indiana Society for Crippled Children and Adults, Inc., Indiana Tuberculosis Association, Inc., Indiana State Chapter of Myasthenia Gravis Foundation, Inc., Muscular Dystrophy Association of America, Inc., National Foundation, Inc., United Cerebral Palsy of Indiana, Inc., Indianapolis Diabetes Association, Alsac, Arthritis and Rheumatism Foundation, Indiana Chapter, Association of Retarded Children, Indiana Chapter, City of Hope, Muscular Dystrophy Foundation, Social Health Association of Indianapolis and Marion County, Society for Prevention of Blindness, Indiana Chapter.

The members of the Commission were assigned on a voluntary basis to represent the Commission in liaison with the principal voluntary health agencies of the State. At least one member of the Commission was assigned to each agency and in many instances more than one.

Letters were written to the various agencies informing them of this contact.

At this meeting the Commission discussed the necessity for voluntary health committees being established in every county society and the Commission requested the Council to urge that all component county medical societies form such a committee, if they do not already have one. The Commission also acted at this meeting to inform all United Fund Agencies and Better Business Bureaus and Chambers of Commerce throughout the State of the activities of this Commission and their proposed evaluation of voluntary health agencies operating in the State.

At this meeting a letter from the National Foundation, on their letterhead, reached the Commission and the Commission's principal interest in the letter was in the letterhead itself which indicates that the National Foundation is not only including poliomyelitis in its field but has now branched out to include arthritis, birth defects and central nervous disorders. The Commission is vehemently opposed to the extension of the operation of this Foundation in such a manner and the Council of the Association was requested to express the disapproval of the Indiana State Medical Association of the extension of such organizations into other fields.

The third meeting of the Commission was held on Jan. 21, 1962.

At this meeting of the Commission the contact of the liaison members of the Commission with the voluntary health agencies was gone over in detail.

At this meeting a representative of the Council on Medical Services of the AMA, Miss Barbara Farley, was present to consult with the Commission. The plans of the Commission for the evaluation of voluntary health agencies was gone over with Miss Farley and she made a few suggestions but in the main agreed with our method of procedure. She did state that so far as the AMA is concerned that they have made many overtures to the National Foundation in regard to the apparent extension of the interest of this Foundation but that these overtures had been non-conclusive to date.

She further stated that the Shipman Committee of the AMA is awaiting the publication of a uniformed accounting procedure by the National Health Council before proceeding further to bring all of the voluntary health agencies on a national level in to some type of agreement for uniform study. Miss Farley stressed that the voluntary health agencies felt that physicians were not capable of doing this type of accounting work but that the National Health Council was solving its problems. At the suggestion of Miss Farley, the Commission requested, and received, permission to become a member of the National Information Bureau at a cost of 25 dollars per year. Also, at Miss Farley's suggestion, the Commission undertook to publish basic data on the voluntary health agencies in this State in *The Journal* of the Indiana State Medical Association. This was because it was felt that many physicians do not know the agency that can give them help in many problems and it would bring better liaison between the agencies and this Association if this information were widely promulgated.

Mr. Robert Patty was contacted by the Commission relative to the formation of the Council of Voluntary Health Agencies in this State and Mr. Patty invited the Chairman of the Commission and such other members of the Commission as he desired to bring with him to attend a meeting of these agencies.

At the January meeting the Commission was informed that our recommendation on the National Foundation to the Council of the State Association had been tabled and the Chairman was mandated to revive this request.

On March 14, the Chairman of the Commission was invited to meet with representatives of the voluntary health agencies. This meeting was called in an effort to perfect the formation of the Council of Voluntary Health Agencies of Indiana. At his request, the Chairman was allowed to include Dr. Shullenberger and Dr. Gosman as representatives of this Commission to this meeting. A majority of the voluntary health agencies concerned had representatives at this meeting and a great volume of discussion took place. There seemed to be reluctance on the part of voluntary health agencies, especially the Tuberculosis Association, to form such a Council in the apparent

fear that the organizations would interfere with each other in their operations.

The representatives of the Indiana State Medical Association were asked whether or not this Association was willing to submit its proposed questionnaire to the individual voluntary health agencies if they do not form such a Council or if the organization would not have membership in such a Council, if formed. The representatives of this Commission replied that the Indiana State Medical Association would deal directly with each organization concerned and that the formation of the Council on Voluntary Health Agencies was not a mechanism of this Association but of their own voluntary effort. The Commission would notify the various agencies concerned that the questionnaire, as composed by various members of the voluntary agencies, would form the basis of our inquiry and that we definitely would stick to the criteria already circulated to them.

The meeting of March 14, adjourned with the definite decision not being made by the various agencies concerned as to the formation of a Council.

The fourth and final meeting of the Commission for this year was held on May 20.

It was reported by the Chairman that the Council of the Indiana State Medical Association had set up their report from this Commission for its July Meeting.

The Commission instructed the Chairman to bring to the Council's attention that it has not changed its opinion of disapproval of the voluntary health agencies extending their fields, especially in the case of the National Foundation, which has branched out from poliomyelitis to include virus diseases, arthritis, birth defects and central nervous system disorders.

It was also brought to the Commission's attention that the Tuberculosis Association is also branching out to include other diseases of the pulmonary system.

The Chairman is instructed to bring both of these matters to the attention of the Council, in the hope that official action may be taken showing the official disapproval of the Indiana State Medical Association of such practices.

The Commission was made aware that the formation of the Indiana Council of Voluntary Agencies, through which the Commission had hoped to work, seems unlikely to be completed at an early date, if ever. Therefore, it was the decision of the Commission to proceed with the evaluation of the voluntary health agencies independently of any organization of those agencies.

For this reason, a definition of a voluntary health agency was agreed upon as follows: "Voluntary health agencies, generally, are organizations of physicians and laymen who have banded together voluntarily because of a common interest in the prevention, control and possible eradication of a disease or group of diseases. Because of the nature of their programs and activities, medical approval and leadership are important to the success of all such agencies."

The Commission was informed that a copy of the criteria and the proposed questionnaire for voluntary health agencies had been supplied to all county societies of this Association and it was decided that all State Chambers of Commerce, Junior Chambers of Commerce, Better Business Bureaus and Community Fund Organizations in this State should receive this information, together with a statement that the Indiana State Medical Association, through the Commission on Voluntary Health Agencies, intends to submit this questionnaire to all voluntary health agencies operating in this State and that based on the answers received that this Commission will either apply the stamp of approval to these organizations, or will note its disapproval and that this information will be published to all members of the Indiana State Medical Association.

It was further decided that in the event that an organization refuses to submit this questionnaire that it will be disapproved for this reason and the reasons stated when the information is published.

At this meeting of the Commission it was noted that a great volume of correspondence is beginning to flow to the Commission from various sources on voluntary health agencies' operation. It is felt that this is a very definite indication that the work of the Commission has been worthwhile to date and promises a great deal more in the future.

The Commission has been in touch with the officers of the National Health Council and information has been received that the National Health Council has now published its recommended procedure of financial operations for all voluntary health agencies. These recommendations are published in two volumes—one an informational bulletin of assistance (which is in the possession of the Commission) and another is a detailed manual for use of the agencies themselves. Since this had been a point of question so far as physicians' ability to work out such accounting procedures, a notice was sent to all voluntary health agencies operating in this State that this nationally approved source had now been made available.

A letter from the National Foundation was referred to the Commission at this meeting concerning correspondence over several years with the Indiana State Medical Association over the appointment of one of the Association's members to the Health Scholarship Committee of the National Foundation. In this letter the Director of Medical Care of the National Foundation expressed rather vehemently the impression that the Indiana State Medical Association had been reluctant to cooperate with the National Foundation.

After a great deal of discussion and reviewing of previous consideration of this particular matter with the National Foundation, it was decided to

recommend to the Council that when, and if, the National Foundation submits the required questionnaire to this Commission and receives its approval, that the Indiana State Medical Association should then consider the appointment of a physician member of the Association to such a scholarship committee.

Correspondence has been addressed to the AMA asking that the work of the Shipman Committee of the AMA be made known on a current basis to this Commission in order that work in Indiana may be correlated with that on a national level.

At this meeting of the Commission Mr. John P. Price, attorney for the Association, appeared before the Commission and went over the activities of the Commission in great detail and gave the Commission his opinion that the activities that we are now ready to engage in do not place the Association in any legal jeopardy.

A member of the Commission next presented the problem which has been presented to this Commission several times in the past of national voluntary health agencies acting in an imperialistic fashion about the fund raising practices of local voluntary health agencies.

In this particular consideration the facts were presented showing that the Delaware County Cancer Society preferred to use their own means of raising funds in their county but that the National Cancer Association had threatened to revoke the charter of the Indiana Chapter for the entire State if the Delaware County organization did not comply with its directive in regard to fund raising. Under date of May 24, Mr. James Waggener, at the request of the Commission, informed Dr. Thomas Carlisle, President of the American Cancer Society, of the long time policy of the Indiana State Medical Association on this subject. Because of the feeling of this Commission that this question is of great interest to the entire membership of the Indiana State Medical Association, this letter is quoted as follows:

May 24, 1962

Thomas Carlisle, M.D.
President, American Cancer Society
The Mason Clinic
1118 Ninth Avenue
Seattle, Washington

Dear Doctor Carlisle:

It was nice having the opportunity to speak to you by phone Monday evening to discuss the action taken by our Commission on Voluntary Health Agencies relative to the threat which has been reported that the American Cancer Society would cancel the charter of the Indiana Cancer Society within thirty days if they did not abrogate their agreement with the Delaware County Chapter. It was heartening to have your reassurance that the American Cancer Society will not cancel the Indiana charter due to this misunderstanding which apparently has arisen regarding the agreement between the Indiana Chapter and the local group.

As I pointed out to you by phone the Commission adopted the Resolution, a copy of which is enclosed, which has been submitted to the Executive Committee of the Association for their formal approval.

If I understood you correctly you were unaware of the position of the Indiana State Medical Association, as well as the American Medical Association, regarding the question of local chapters being afforded the right to exercise local option in fund raising methods.

I believe you are aware of the McClendon Resolution which was adopted in the June, 1958 Meeting by the American Medical Association, in San Francisco, which the American Cancer Society later interpreted to mean a prohibition against the use of United Funds and other methods of collection other than local crusades.

In order to clarify this point the House of Delegates of the Indiana State Medical Association, in October, 1958, had before it three Resolutions—Resolution No. 19, which reads as follows:

"Resolved, that the Allen County Medical Society will go on record as not being in agreement with the American Medical Association's Resolution and suggesting that the Indiana State Medical Association's House of Delegates request that the American Medical Association's House of Delegates give further consideration to the basic American Medical Association Resolution at the Clinical Meeting at Minneapolis, November, 1958."

The second Resolution dealing with local cancer society agencies reads as follows:

"Resolved, that the House of Delegates of the Indiana State Medical Association approve the action of the local cancer society units, and

Be it further Resolved that it is the firm belief of the Indiana State Medical Association that these local cancer society agencies should have the right to determine their own local policies to retain their identity and to act in the manner in which they individually deem best in order to accomplish their basic purpose."

The third Resolution was on the subject of federated giving. The Resolution said:

"Therefore, be it Resolved that the federated giving be conducted in those counties able to provide such efficient support."

The Reference Committee considered these three Resolutions before a large representation of the members and representatives of various agencies and the following Resolution was formally adopted by our House of Delegates at its October, 1958 Meeting:

"Whereas, the American Medical Association House of Delegates, in June, 1958, approved the McClendon Resolution, which has been interpreted as disapproving the inclusion of national, voluntary health agencies in United Fund drives, and;

Whereas, many communities, with the support and approval of the physicians of that community, have elected to combine their activities in a single, fund raising endeavor;

THEREFORE, BE IT RESOLVED, that the House of Delegates of the Indiana State Medical Association approve of local option in fund raising consistent with the best results and the comprehensive needs."

The State of Indiana introduced a similar Resolution before the American Medical Association House of Delegates Meeting in Minneapolis, December 2-4, 1958. The Resolution read as follows:

"That the House of Delegates of the American Medical Association approve of local option in fund raising, consistent with the best results and the comprehensive needs."

This Resolution was considered by the Reference Committee on Legislation and Public Relations and they passed a substitute Resolution which was adopted, which reads as follows:

"Whereas, there is nothing in this action (referring to the June, 1958, Resolution) that is critical of the United Fund, as the United Fund is not even mentioned, and;

Whereas, this action has been interpreted by some as

disapproving the inclusion of voluntary health agencies in United Fund Drives;

Therefore, Be it Resolved, that the American Medical Association neither approve, nor disapprove, of the inclusion of voluntary health agencies in United Fund Drives, and;

Be it further Resolved, that the Board of Trustees be requested to arrange a top level conference with the voluntary health agencies, the United Funds and other parties interested in the raising of funds for health causes, with the view of resolving that misinterpretation and other difficulties in this area."

In order to make certain of the interpretation placed upon the Resolution by the Board of Trustees of the American Medical Association, I discussed by phone, on this date the question with Doctor E. B. Howard, the Assistant Executive Vice President. He assures me that the American Medical Association stands wholeheartedly in favor of local option in fund raising drives.

I understand that you are familiar with the situation in Indiana, having met with the Board of the Indiana Chapter, and I am sure you are also aware that in some industrial communities business and industry have combined to limit solicitation to a single solicitation for all purposes and will not permit individual soliciting within their industry or their business houses.

This is the case in Delaware County—the soliciting by the Delaware County Chapter can not be carried on in business and industrial places and, therefore, would necessitate individual soliciting throughout the County, which would greatly increase the cost of raising these funds. It is our further understanding that the agreement in question states that the local chapter will not put on a crusade unless the goals are not attained through the use of the United Fund.

It would appear to us that from the position of organized medicine this agreement is strictly in order inasmuch as (#1) local option has been utilized in the formulation of their contract; (#2) the necessary funds will be obtained; (#3) a safeguard has been included in the contract providing that a crusade will be held if combined giving does not equal the goal established, and (#4) the cost in raising these funds by the method being employed is unquestionably more economical than an independent effort. Therefore, it would appear to us that the goals are being achieved at a less cost to the giving public.

For your further information, I am enclosing herewith the Criteria which has been formally adopted by the Indiana State Medical Association for the official recognition of voluntary health agencies.

We trust, therefore, that the American Cancer Society will be willing to reopen its consideration of the problems and the policies as outlined in the State of Indiana.

We would, of course, appreciate your advising us that the local option can prevail in Indiana.

Sincerely yours,
James A. Waggener
Executive Secretary

JAW-ec
enc.
cc-Dr. Booher
Mr. Adams
Mr. Cordell

RESOLUTION

WHEREAS, the Indiana State Medical Association is on record as supporting local option on fund raising for voluntary health agencies (resolution of the House of Delegates meeting, 15 October, 1958) and

WHEREAS, the Indiana State Medical Association is aware of the effective program of The American Cancer Society in comprehensively attacking the total cancer problem and appreciates the value of this program in Indiana, and

WHEREAS, the fund raising policies of the American Cancer Society have materially reduced the implementation of the American Cancer Society's program in Indiana, and

WHEREAS, in Delaware County an effort to resolve this depressing effect on implementation of the American Cancer Society's program in Delaware County has been worked out, specifically a working agreement with United Fund of Delaware County and the Delaware County Unit of the American Cancer Society, duly approved by the Indiana Division of the American Cancer Society as consistent with the 10 Point Program of the American Cancer Society for cooperation with United Funds, and

WHEREAS, the Executive Committee of the American Cancer Society has abrogated this agreement and threatened the Indiana Division with withdrawal of its charter, thereby rendering a great setback to the comprehensive attack against cancer, not only in Delaware County, but in the whole State of Indiana, and

WHEREAS, in eleven Counties in Indiana it is costing 88½ cents out of every dollar raised to maintain the local Unit's fight against cancer through the American Cancer Society, which is contrary to the basic concepts of the function of Voluntary Health Agencies,

NOW, THEREFORE, Be it Resolved that the Executive Committee of the Indiana State Medical Association, enjoin the American Cancer Society to liberalize their interpretation of agreements of its Units in Indiana with local United Funds and specifically not impede the comprehensive fight against cancer in Indiana by withdrawing the Indiana Division's charter.

AND FURTHER, BE IT RESOLVED that the Executive Committee of the Indiana State Medical Society be on record as disapproving the fund raising practices of the American Cancer Society until such time as the cost of these activities locally can be brought into the recognized limits of Voluntary Health Agency standards as expressed in the National Health Council Requirements for Voluntary Agencies.

CRITERIA FOR OFFICIAL RECOGNITION OF VOLUNTARY HEALTH AGENCIES

1. Must conform to fund raising practices of National Social Welfare Assembly.
2. Must request approval by the Indiana Medical Association and agree to utilize qualified medical guidance from the Association to an adequate degree in planning and implementing medical and research activities.
3. Must clearly define its relationship (if any) with a national group in regard to its status or degree as ancillary or independent unit.
4. Must state fully its purpose and objectives as related to health services and medical care and research.
5. Must demonstrate adequately its objectives and fund goals are realistic when related to actual needs.
6. Must show that cost of fund raising and administration is reasonable in relationship to total expenditures towards its stated objectives.
7. Must show that educational and promotional materials used are medically sound and presented in good taste.
8. Must relate its expenditures and services to needs for such services and to established medical care patterns.
9. Must justify its research expenditures by morbidity and mortality incidence and research needs.

As a result of this correspondence, it was felt that the matter of fund raising of this particular group had been clarified in this State by the Executive Committee of the Medical Association by the Resolution that was attached to the letter to Dr. Carlisle, which Resolution appears above.

At the May 20 Meeting of the Commission, the Commission voted to proceed independently with all of the voluntary health agencies listed previously in

this report by sending them a covering letter, together with the Criteria of the Indiana State Medical Association, for the approval of the voluntary health agencies and the questionnaire for their use.

This letter reads as follows:

"As you know, the Indiana State Medical Association, through the Commission on Voluntary Health Agencies of this organization, has spent two years of intensive study on the voluntary health agencies operating in the State of Indiana and their relationship to organized medicine.

The Indiana State Medical Association feels a very keen responsibility to assist the member physicians of this organization to evaluate agencies appealing to the public for support in health projects.

It was because of this feeling that the House of Delegates of the Indiana State Medical Association charges this Commission with the development of some system of evaluation which would allow this Association to reliably inform our membership of the facts pertainign to voluntary health agencies.

During the two years this program has been under study all voluntary health agencies known to this Association have been contacted and have counseled with the Association on numerous occasions. As a result of these consultations, we have produced the attached questionnaire which we feel will give us the information necessary to evaluate each voluntary health agency and give us the answer whether or not each agency qualifies for the approval of organized medicine in Indiana as set forth in our Criteria of approval, a copy of this Criteria is also attached.

If you desire to request approval of the Indiana State Medical Association of the activities of your organization, please complete this questionnaire in full and return it at the earliest practical date to the Indiana State Medical Association and it will in turn then be referred to the Commission on Voluntary Health Agencies for their study.

Approval, or disapproval, of each organization requesting this study will be published to the members of the Indiana State Medical Association throughout this State. At least annually those organizations operating in this State who do not seek this approval will also be brought to the attention of our membership.

Sincerely yours,
James A. Waggener
Executive Secretary."

JAW-ec
enc.

The questionnaire attached to the above letter is the one originally drawn up by members of voluntary health agencies themselves with minor changes on the part of the Indiana State Medical Association. This letter has been sent and as the agencies complete their fiscal year it is expected that they will return the questionnaire to the Commission for evaluation. Those members of the Commission assigned as liaison with these various agencies will make recommendations, after study, to the Commission itself, who will at its next meeting after receipt of the questionnaire, proceed to approve, or disapprove, or continue a study of the agency in question.

From time to time, as received, these approvals will be published for the information of the Indiana State Medical Association members. (As this report is dictated, some of the completed questionnaires have been returned.)

The Chairman wishes to take this opportunity to thank the members of the Commission for their many hours of work for the Indiana State Medical Association this year and to especially thank Miss Eleanor Chapple, of the Headquarters Staff, who has acted as our secretary.

NORMAN R. BOOHER, M.D., *Chairman*

Council of Voluntary Health Agencies
Proposed Annual Report
for
Organization Members

Please Complete the Following Questions as Completely as Possible

1. Name of Organization_____

2. Address _____ City _____

3. Are you incorporated under Indiana law? Yes_____ No_____
   If not, are you incorporated under another state's statutes? Yes_____ No_____
   What State?_____

4. Is your national organization a signator to the "Standards of Fund Raising for Social Welfare Organizations?" Yes_____ No_____

5. What is the size of your Board of Directors? _____ Is it called by another name? _____ If yes, what? _____
   How often does it meet?_____ How many are physicians?_____
   To what extent do the Physicians participate?_____
   Number of Board of Directors_____
   Is it based on a geographical representation? Yes_____ No_____

6. *Membership.* How can a person become a member of your organization?
   By application_____ Payment of dues_____ Other_____

7. *Policy.* Who is responsible for the development of policy? Board of Directors_____
   Other_____ Please describe_____

8. *Objectives.* What are the objectives of your organization? _____

9. *Program.* Describe your basic program_____

10. Do you provide health services? Yes_____ No_____ If yes, check the following which apply.
Clinics _____
Information and Referral_____
Mass Screening _____
Payment of Indigent Patients_____
Hospital Equipment _____
Drugs _____
Prosthesis_____
Camping _____
Other _____

11. Do you support any research? Yes_____ No_____ If available, please attach an explanation of your research program and a list of current projects being supported.
How much research support are you giving this year? _____
How are research grants awarded?_____
Number of projects being supported_____ Where? _____
Do you have a fellowship program? Yes_____ No_____ How many did you support last year_____ Who may qualify? _____

12. *Fiscal Operation.* Are your fiscal operations conducted in accordance with a detailed annual budget approved by your Board of Directors? Yes_____ No_____ If no, describe_____

13. Please attach a statement of your 1960-61 expenditures.

14. Is an annual audit made by a Certified Public Accountant or trust company? Yes_____ No_____

15. What are your administrative costs? (percentage of total expenditures)_____
_____
Do you use a functional allocation of expenditures? Yes_____ No_____ If not, describe method used. _____

16. *Ethical Methods of Promotion.* Is your publicity and promotion based on actual program and operations of the agency? Yes_____ No_____
Local clearance _____Approved by Medical Society_____

17. Do you protect against unauthorized use of your contributors list? Yes_____ No_____

18. How much was raised in your 1960-61 campaign?_____
What is your fund raising goal for 1961-62?_____ Describe how you arrived at this goal. _____

19. Do you employ a professional fund raising firm to raise funds? Yes_____ No_____
Please check the fund raising methods used:
House to house solicitation _____
Special gifts _____
Special events _____
School solicitation _____
Tag days _____
Business solicitation _____
Industrial solicitation _____
Inplant solicitation _____
Memorials _____
Bequests _____
Others _____
Do you permit local option in fund raising techniques?
Do you have a statement of fund raising practices? Yes_____ No_____ If so, please attach.
Question of duplication.
Do you receive any part of your funds from United Fund? Yes_____ No_____ If so, what percentage?_____ If you are a member agency of United Fund, do you contribute to the campaign in any way? Yes_____ No_____ If yes, how?_____

20. *Fund Raising Costs.* What are your fund raising costs? _____
Does this percentage include a functional portion of employees salaries? Yes_____ No_____

21. How many Hoosiers died during 1960 of your disease entity _____
(or during last available report of State Board of Health)
What is your estimate of the number of Hoosiers affected by your disease entity?_____

22. *Relationship with National Organization.* Are you affiliated with a national organization? Yes_____ No_____ If yes, how? Affiliate_____ Chapter_____ Other_____
Do you prepare an annual report to your membership? Yes_____ No_____ If so, please attach your most recent report.

23. Do you request approval of your program by the Commission of Voluntary Health Agencies of the Indiana State Medical Association? Yes_____ No_____

24. List your officers: Name Address
President _____
Vice President _____
Secretary _____
Treasurer _____

25. List your Executive Secretary or his counterpart:_____
Date_____ Signed_____

Medical Economics and Insurance

The Commission on Medical Economics and Insurance met on November 12, 1961, January 21, 1962 and May 6, 1962.

Its work was divided among four sub-committees:

Sub-Committee A was assigned the study of *Medical Care for Welfare Recipients.* The Commission makes note that payment for medical care for the medically indigent in Indiana is provided for in Chapter 210, Acts of 1961, amended sections 34 and 37 of the Welfare Act of 1936. This new law which became effective January 17, 1962, provides, "that payment may be made by the County Department of Public Welfare for medical care for an applicant for Old Age Assistance who is financially able to meet his living expenses but whose income and resources, including health insurance benefits, are not sufficient to pay for necessary medical care. Similar provisions have been in effect for some time for recipients of Old Age Assistance." (*Medical Only in Old Age Assistance,* State Dept. of Public Welfare, 1962.)

Also Sub-Committee A was assigned the study of *Pre-payment plans for the Over 65 Age Group.* This Commission makes note that the Indiana State Medical Association House of Delegates, March 11, 1962, rejected the AMA proposed national Blue Shield Service Plan for the over-sixty-five age group and voted to offer in its place the Indiana Standard Blue Shield Plan.

Sub-Committee B was assigned the *study of Insurance for Officers and Committee Members of our various Societies, the State Association and hospital Staffs.* It is noted that insurance covering the actions or the statements of society officers and committee members is not available, but accident and disability protection while on Association business is available.

Sub-Committee C was to study *Nursing Homes with Respect to Standards, Inspection and Prepayment.* It was also assigned the study of medical foundations and patient loan fund plans.

Nursing Homes and Health Insurance Coverage

The Commission believes the prepayment of Nursing Home Care is urgently needed for political, clinical, and economic reasons. With the administration proposing a Bill to provide up to one hundred and eighty days of skilled nursing home care; with the necessity to reduce expensive long hospital stays for the chronically ill patient; and with the increasing life span and accompanying chronic diseases, the Voluntary Health Insurance Industry should develop feasible prepayment mechanisms with the cooperation of the medical profession. The Commission further recommends increased County Medical Society study of medical facilities for the care of the chronically ill in their area, with development of methods for improving patient care with due concern for economic factors. The Commission will assist local Societies in such efforts upon request.

Patient loan funds as methods of financing medical bills are not found to be in demand in this State, with its many industrial employees who are covered by group insurance.

Sub-Committee D was assigned the *Continuing Study of Blue Cross-Blue Shield Pathology and X-Ray Transfer of Funds for Payment for These Professional Services in Hospitals.*

This Commission notes that in the past several resolutions have passed the House of Delegates urging a transfer of funds from Blue Cross to Blue Shield to pay for professional services, but the transfer has not been accomplished. The AMA House of Delegates has clearly stated that hospital service contracts should not include medical services, and yet we find in Indiana that Blue Cross instead of Blue Shield handles the payment for x-ray, laboratory and pathology services. This Commission strongly recommends that some means be found for transferring the funds for paying for Doctors' services from Blue Cross to Blue Shield. We recommend that the Doctors rendering these services submit their bills to Blue Shield as all other physicians do, and leave it up to the Blues to find some way to transfer these funds or change the method of assessing premiums to remove medical services from the hospitalization contracts of Blue Cross. We feel that all Doctors' services should be paid through Blue Shield, the Doctors' Plan, rather than through hospitalization insurance which holds these physicians under lay administrative control for their fees.

The Commission, as a whole, received Resolution #26 referred to it by the 1961 House of Delegates for study and recommendations. At its November 12, 1961, Meeting, the Commission adopted four recommendations regarding Resolution #26, which were submitted to the Executive Committee of the Indiana State Medical Association under date of November 14, 1961. These recommendations favored the adoption of the intent of Resolution #26, and gave suggestions for methods of implementing Resolution #26.

The Executive Committee took no action on these recommendations, but under date of November 20, 1961, authorized this Commission to send its recommendations to the component medical societies for information purposes. This was done on the following day.

Efforts were made by various Commission Members to discuss Resolution #26 and our Commission's recommendations at county society meetings in anticipation of the House of Delegates Meeting to be held early in 1962.

The Commission's full report on Resolution #26 was read at the House of Delegates Meeting March 11, 1962. A substitute for Resolution #26 was then presented and adopted by a vote of 73 to 36, enabling Blue Shield to offer pre-payment plans on a state-wide basis having no schedule of indemnities.

The Commission held its final meeting May 6, 1962, at which time sub-committee reports were

called for, and there was discussion of miscellaneous items, including the trend toward "non-participation" of Doctors in various government sponsored medical care plans (Point Pleasant, N.J. and Pittsfield, N.H.). There was also discussion of the work of the Joint Study Committee on Economics of Modern Health Service.

In conclusion, this Commission wishes to draw attention to various Association group insurance and investment plans which claim in their mail advertising to be approved by this Commission. Such claims are untrue. We disapprove of this method of insurance or investment marketing, and it is our policy to give no favored position to any one company or plan by granting approval, endorsement or sanction in any way whatsoever.

The Chairman wishes to express his thanks to all members of this Commission who have given generously of their time and loyalties during the past year.

LOWELL I. THOMAS, M.D., *Chairman*
JOHN W. BEELER, M.D., *Vice-Chairman*
WILLIAM H. GARNER, JR., M.D., *Secretary*
WILLARD T. BARNHART, M.D.
EDWARD T. EDWARDS, M.D.
WILLIAM SCHARBROUGH, M.D.
HUBERT T. GOODMAN, M.D.
MORRIS D. WERTENBERGER, M.D.
JOSEPH L. LARMORE, M.D.
RICHARD P. GRIPE, M.D.
R. JAMES BILLS, M.D.
LEE CATTELL, M.D.
JOHN LANGOHR, M.D.
JACK W. HANNAH, M.D.
CLIFFORD TAYLOR, M.D.

Joint Study Committee on Economics of Modern Health Services

The organizational meeting of the Joint Study Committee was held on January 10, 1962, with three representatives each from Indiana State Medical Association, Indiana Hospital Association, Indiana Health Insurance Council, Blue Cross and Blue Shield, plus the executive secretaries of each group as ex-officio members. Further meetings were held on January 24, February 7, February 21, April 18 and June 6, 1962. Subjects discussed included utilization committees, progressive patient care, professional statistical analysis, out-of-hospital patient care, regional and state wide medical facilities planning, including cooperative support facilities of hospitals.

The "Joint Study Committee" provides a forum for the exchange of ideas and experiences in promoting economic efficiency in medical care with emphasis upon voluntary prepayment facilities. Knowledge derived from the discussions is intended to be referred to parent organizations for consideration and possible definitive action. It has been most apparent that the interdependency of physicians, hospitals, and insurance carriers prohibits any one group from making any considerable change without cooperation of the others involved. It is hoped that by various research activities and experimentation more economic efficiency can be obtained in providing medical services without sacrificing high quality of clinical care.

The physicians in Indiana can help towards this end by developing more accurate statistical data and reducing costs for their hospitals by encouraging medical record departments to institute more automation through affiliation with Professional Activity Study of Ann Arbor, or similar agencies. The savings in hospital personnel frequently offsets the direct expense involved.

Utilization Committees

The Chairman of the "Joint Study Committee" submits the following recommendation to the House of Delegates for decision. Definition of Utilization Committee: Committee composed of medical staff members of a hospital whose function is to study the economic efficiency of medical care of the hospitalized patients.

It is not to be confused with "Local Review Committees" whose purpose is to determine reasonableness of professional fees. Recommendation: Commission on Medical Economics and Insurance shall undertake a statewide study of the economic efficiency of patient care in cooperation with local hospital medical staff utilization committees to be established in conformity with the above definition.

E. T. EDWARDS, M.D., *Chairman*
Joint Study Committee on Economics
of Modern Health Services

Joint Study Committee on Economics of Modern Health Service

Indiana State Medical Association
- E. T. Edwards, M.D., *Chairman*
- Lowell Thomas, M.D.
- Wallace D. Buchanan, M.D.
- James A. Waggener, *ex-officio*

Indiana Hospital Association
- Walter G. Ebert, Ball Memorial Hospital, Muncie
- Everett A. Johnson, Methodist Hospital, Gary
- W. C. McLin, Community Hospital, Indianapolis
- Elton TeKolste, *ex officio*

Blue Cross
- Russell J. Hulse, Delco Remy
- Fred A. Lobley, Miles Laboratory
- Dallas W. Sells, AFL-CIO of Indiana
- Guy W. Spring, *ex-officio*

Blue Shield
- Bernard D. Rosenak, M.D.
- William Bayley, M.D.
- George W. Willison, M.D.
- R. S. Saylor, *ex-officio*

Health Insurance Council
- Norman D. Steingraber, Health Insurance Council
- Carl R. Ashman, Lincoln National Life Ins. Co.
- Ralph Trask, John Hancock Mutual Life
- John Pearson, M.D., American United Life Insurance Co.

Inter-Professional Relations

The Chairman of the Commission on Inter-Professional Relations reports that his Commission has had no business come before it this year—that nothing has been referred to them for study.

ROBERT D. HOWELL, M.D., *Chairman*
FLOYD A. BOYER, M.D.
ROBERT D. WILLIAMS, M.D.
JOSEPH D. McDONALD, M.D.
ROBERT H. RANG, M.D.
JOHN W. RIPLEY, M.D.
PAUL HUMPHREY, M.D.
FRANK H. GREEN, M.D.
KENNETH O. NEUMANN, M.D.
MILTON B. GEVIRTZ, M.D.
JOSEPH B. DAVIS, M.D.
JACK L. EISAMAN, M.D.
F. R. NICHOLAS CARTER, M.D.
NEAL E. BAXTER, M.D.

Medical Education and Licensure

The Annual ISMA (112th) Convention for 1961, which was held in Indianapolis, Indiana, October 23 to 26, 1961, closed following the usual convention procedure. The final act was reorganization of Commissions including Medical Education and Licensure.

Dr. Francis Land, Ft. Wayne, resigned as Commission Chairman due to the press of other duties with the ISMA and the Academy of General Practice necessitating selection of his successor for the coming year under President Harry Stimson.

Dr. Ralph C. Eades, Valparaiso, was chosen chairman of the Commission for 1962; Dr. Forrest LaFollette, Hammond, was elected Secretary; Dr. Harry Klepinger, Lafayette, was elected Vice-chairman. The first meeting was called for Nov. 19, 1961 at the I.U. Medical Center.

The new Commission Chairman provided the new members with adequate background for proper continuation of all activities of the committee composing the Commission. Among the topics discussed were:

1. Increased use of *The Journal* to further Education and Licensure activities.
2. Increased stimulation to County Societies regarding the Chiropractic issues which the group considered far from being a dead issue in Indiana.
   a. Their efforts to obtain professional recognition through insurance was considered.
   b. The local societies could help regarding referrals by Chiropractors at the local level and in turn co-operate with state groups—especially the legislative commission.
   c. Chiropractors and compensation cases in which insurance companies allowed fees were felt worthy of investigation.
   d. Doctors could combat the Chiropractor therapy problem by more practical use of physical therapists.
3. The several sub-committees were named at this meeting as follows:
   a. Sub-Committee Medical Education. Dr. Harry Klepinger—Chairman, with Dr. Robert W. Harris, Dr. Jack Shields (later resigned because of duties as Delegate to AMA) and Dr. Peter P. Petrich.
      (1) Dr. Klepinger discussed details of Intern-Resident Day at I.U. Medical Center and presented a tentative program.
4. General Problems of application to medical schools were discussed.
5. Dr. Frank Ramsey was invited to next meeting to help get Medical Educational and Licensure problems to the membership through *The Journal.*
6. The Commission was in entire approval of shortening the Medical Training period to get the most for the student in the least time commensurate with adequate training.
7. A brief discussion of Medical Records as they affect the Medical profession today was held and the Commission felt further study, more concentrated and more extensive in nature would be objectively helpful.
8. The "School Health Policies" from the Department of Public Instruction were considered and the group requested wider distribution of the booklet in order to increase its effectiveness.
9. A Five Thousand Dollar budget (as against the previous year's $4,700) was requested in order to accomplish programs already started in previous years.
10. Drs. Eades and LaFollette were assigned to help with Science Fair activities which is now under an Education Sub-Committee.
11. Nursing Education was approved as an interest of the Commission but no definite commitment or decisions were made.

The second meeting was held Sunday, February 25, 1962 at the I.U. Medical Center. Guests included Dean John Van Nuys of Indiana University; L. A. Willig, Vice President, Tri-State College at Angola; Dr. Robert Yoho of the Indiana State Boards of Education and Health; Frank Ramsey, M.D., Editor of *The Journal.*

It was at this meeting the death of Dr. Basil M. Merrell was announced and that Dr. William N. Wishard, Chairman of the Sub-Committee on Licensure, had resigned as had Irwin S. Hostetter, M.D. Dr. A. C. Offutt of the State Board of Health could not attend. Business of his office prevented our President, Dr. Harry Stimson from being present.

Closer co-operation with *The Journal* was dis-

cussed with the Editor, Frank Ramsey, M.D., by the entire Commission.

Dean Van Nuys presented current problems at the Medical School including Educational and Licensure aspects.

Correlation of Medical Education and Licensure with the State Board of Health was discussed by Dr. Robert Yoho.

The Education Sub-Committee brought the Commission up to date, in the afternoon session, with such problems as:

Career Days (Dr. Klepinger).

Recruiting.

Athletics—including training, injuries, equipment, questionable practices, teeth, deaths.

Hospitals—including Education Directors in the face of doctor shortages.

Doctor-Teacher relationship in school activities (Resolution #14, French Lick 1960) and Fall Teacher's Conventions; Physical Education and Athletics.

Science Fair at the state level was approved by the Commission and the Special Sub-Committee continued liaison with the State Directors.

The Sub-Committee on Licensure which had previously chosen Dr. Wm. Wishard (resigned) as chairman, brought up four matters of apparent importance.

It was agreed that some kind of written policy on Osteopathy should be accomplished. A rough first draft was agreed upon as feasible since all felt it might take several years to formulate a clean-cut, definite, ethical, approved policy in writing which would meet the demands of the time.

The Legislative Commission and the Indiana State Board of Registration are doing an excellent job and our Commission should be solidly behind their efforts to carry out the legal provisions and maintain the integrity of our licensing system.

The Chiropractors are seemingly inactive for the moment but it was believed wise to keep up proper and adequate defense against an inadequately trained group not practicing scientific medicine.

Hypnosis, although approved by the profession, should not be in the hands of charlatans or mercenaries. One place in Indiana teaches laity how to accomplish self-hypnotism and it has become a commercial enterprise. This surely is a problem which will have to be faced by our Sub-Committee on Licensure in conjunction with other professional groups.

A report on Venereal Disease published in the *Bulletin* of the Indiana State Board of Health, was discussed. It was the concensus that the entire medical profession should take a firm educational stand on this vital question.

The report on the Tape Library showed some let-up in activity probably due to the profession's activities in politics which are time-consuming.

The third regularly scheduled Commission meeting was held at the Medical Center on March 4, 1962. The guests on this occasion were Dean John Van Nuys of I.U. Medical School; Doctor Frank Ramsey, Editor of *The Journal*; Dr. Robert Yoho, representing both the Indiana Board of Health and Board of Education. It was brought up at this juncture that since Dr. Yoho and State Supt. of Education, John Wilson had been so helpful, cooperative and constructive in their working with our Commission the past several years, that Gov. Matthew E. Welsh should be apprised of this matter by means of a letter from the Chairman of the Commission. Passed by unanimous consent. This meeting was opened and the morning session conducted by Vice-Chairman Harry Klepinger, in the absence of Dr. Eades who assumed those duties for the afternoon and luncheon periods.

Dr. Van Nuys discussed Resolution #11 from Knox County relating to education of hospital administrators within our own state. He felt that contact should be made with the Indiana Hospital Association seeking their co-operation. Dr. Yoho thought more information should be obtained from the Knox County Society itself. Dr. Eades pointed out that it was evident that the local society had little or nothing to suggest or they would have contributed to the thought of the Convention Reference Committee which recommended the regular Commission give it further and more intensive study. Thus the chair felt something specific should be started by a sub-committee to present something before convention time.

Consideration of coverage by and co-operation with *The Journal* was discussed at some length. Dr. Ramsey agreed with the Commission that it would be well to have more information concerning the activities of the Commission and its sub-committees in *The Journal*. He made it clear he would render any assistance requested.

The question of competition for medical students and associated problems, especially recruiting was discussed by Dr. Van Nuys. He gave statistics for several colleges from which the university obtained medical students. He felt that many students left the state to go to medical college because they could obtain more scholarships which offered larger stipends. The matter of acceptance into medical schools in relation to pre-medical grades was brought up. The Dean said we have had more good applicants (scholastically) during the past year or two than Indiana has ever had. It was concluded that the multi-effort recruiting of recent years may at last be becoming fruitful.

Dr. Klepinger introduced the question of the Airborne Television Instruction which is fast becoming popular. Dr. Ramsey thought this novel program would certainly be effective for a few years even though it might not be permanent. The closed circuit program was thoroughly discussed.

Programs are to be taped at the Medical Center for use of Hoosier doctors as soon as Dr. Van Nuys can work such a program out.

Drs. Van Nuys and Yoho agreed to plan for

some secretarial help for the coming Workshops on May 2, 1962.

The Licensure Sub-Committee brought out problems presented by Dr. Van Nuys. He was especially interested in the fact that some doctors were unable to come to Indiana because of the necessity of taking formal examinations prior to teaching in the State. This was true despite good background of the men in question, many years experience and high qualifications. This had been discussed with our commission some months back by members of the State Board of Registration. Dr. Eades suggested the endorsement phase be looked into and the subject discussed with the State Board.

Dr. Ramsey asked a question concerning the adequacy of anatomy-teaching materials. Dean Van Nuys said the I.U. Anatomy Department was in the best shape in a long time. The morning session ended with a discussion of increased enrollments in medical colleges by the Dean.

After lunch, the morning's discussion was summed up and a recapitulation accomplished.

Dr. Eades discussed the matter of help for the Science Fair winners from Indiana to the Seattle Finals, May 2, 1962. It was explained that State finances being unavailable necessitated a personal appeal to the profession throughout the state.

Dr. Ramsey said an article in *The Journal* giving the requirements for admission to Chiropractic Schools was newsworthy. This should have a real effect upon the public, if they read it. Dr. Eades also discussed Emergency Rooms in hospitals and their many problems including mouth-to-mouth breathing, fall-out shelters, etc.

Civil Defense Emergency Kits were received by the State Board of Health and circulated to school groups through Civil Defense. Nothing is known of their eventual disposition at this time but Dr. Yoho and Dr. Ramsey agreed *The Journal* could help by informing the schools and medical profession regarding them.

Since the AMA has recently announced a student loan plan on a national basis, the plan was discussed to shed light on its possibilities. A booklet published by the AMA entitled *The Wonderful Human Machine* was presented by Dr. Yoho. He suggested the Indiana Board of Health might distribute copies to school groups. Attention was also called to the annual meeting for physicians, nurses and others interested in school health to be held in conjunction with the AMA convention to be held in Chicago in June, 1962.

The AMA sent, through Dr. Yoho, a memorandum regarding School Health Policies in the belief that all members of the Commission should have a copy for ready reference. Dr. Ramsey concurred in having *The Journal* receive copies of all materials sent to Commission members. Doctor Yoho also agreed to send Commission members information about School Health Conferences.

The matter of Osteopaths on hospital staffs was brought up with a request to have our attorney Mr. R. Hollowell discuss compulsory membership on hospital staffs if they do not have internships. The chairman had occasion to get the attorney's opinion on this matter and Mr. Hollowell discussed it with a lawyer for the Osteopaths. It was agreed that all reasonable requirements were legal if they applied to all candidates for staff membership for a long enough period to prove reasonable, fair, and equitable.

May 20, 1962 was the date set for our next meeting which was the first convention of our Commission to be held in the new ISMA Headquarters. The meeting began by an informal inspection of the new building. Everyone was justifiably proud of the building with its novel furnishings and satisfactory accommodations for all state activities.

There were no guests at this meeting, the agenda being sufficient to fill up our day. The Chairman read a letter from Lippincots *Medical Science* regarding Medical Science Days.

The letter from Mark D. Altschuck, M.D., offers to provide a speaker of the doctors' choice in any given area which is 50 miles or more away from a regular medical center or school. The speaker will conduct ward rounds for an honorarium plus his expenses for the day. A reasonable number of physicians must attend and the company's sponsorship must be awarded in the announcements. Everything else is left to local M.D.'s. This was to be carried in *The Journal* for further publicity.

The Commission also decided to go on record as approving Dr. Quigley's statement that "football players should not use hand-me-down equipment." He felt, in general that dangerous sports should not be played unless the participants have adequate equipment of good quality. The Commission concurred with this viewpoint by consent.

A letter to Executive Secretary James Waggener, was read by Dr. Eades concerning Airborne Television Post Graduate programs. Mr. Waggener's reply was made contingent upon the attitude of the Commission regarding this program called M.A.F.T.I. with the following provisions:

1. That a survey of viewers is made to determine *usefulness* of the plan.
2. It must be closed circuit and *controlled.*
3. Mr. Waggener shall investigate it in all aspects. If and when he approves the Commission will support and help put it over to the ISMA members.
4. Drug companies agreeing to sponsor must carry the load because present conditions mitigate against either the Commission or the State Association accepting such a responsibility.

Dr. Eades, who with Dr. LaFollette, served as the Science Fair Sub-committee made a report regarding the Science Fair held in Seattle, May 2 to 5, 1962. He announced that county societies, individual doctors, and others donated $661.00 to-

wards the $12,000 necessary to take the 24 students and their sponsors from Indiana high schools to the National-International competition. Dr. Eades acted as a judge in the Boy's Medical Science group again this year. Indiana did not win a first place this year but did well in other competition. The AMA, ADA, American Veterinarian's Society, The National Heart Association, the Army, Navy, Air Force, Marines and many others acted as sponsors.

Two County Societies each gave $100.00 and one gave $75.00. One individual donated $100.00 and a small Woman's Auxiliary along with a County Society each presented a check for $50.00 which totaled $486.00 with $11.00 more from a small society. The remaining gifts varied from $5.00 to $25.00 divided among 12 donors. All is tax deductible and each received a receipt from the Indiana Academy of Science treasurer. It was gratifying to see the support for our boys and girls in Science Fair which is truly an educational project and making friends among those who will be the patients of our children. We hope to do even better next year when we go to Albuquerque, New Mexico. Again we shall attempt it on a quasi-private basis at no expense to the ISMA.

Dr. Klepinger reported on the Indiana Conference on Medical Education held May 2, 1962. This report will be elaborated on in a Sub-committee on Medical Education and attached to this report.

His report on the conference was duly accepted by the Commission which recommended that plans for next year's meeting be expanded and initiated.

Dr. Harry Klepinger, chairman of the Sub-committee on Medical Education was appointed by Governor Welsh to serve on the Governor's Youth Fitness Council. The Commission concurred with Dr. Klepinger that he be fortified with a letter addressed to Mr. Jacques LeRoy—one of Gov. Welsh's secretaries, regarding the feelings of the Commission on the question of Physical Fitness.

Points enumerated to serve as a guide follow:

1. Includes both physical and pathological phases of body structure.
2. Mental fitness must be included.
   a. It is psychological, particularly behavioristic and psychiatric.
   b. Both the Moral and Spiritual are included.
3. We would also like to point out that sex education should not be left out.

The letter was signed by Ralph C. Eades, M.D., as Chairman, and a copy given to Dr. Klepinger.

Career Days will be taken up at a subsequent meeting after a complete report is given to the Commission by the LaPorte County Society to be used as a guide.

A letter from the Indiana Hospital Association was read and discussed. It requested the Medical and Hospital Association adopt a mutual policy for the purpose of accreditation. It was suggested "such a philosophy of accreditation was not needed —at least with a lay group." It was felt that accreditation has assumed too great importance among those who care for the sick. Doctors only give their best care. A letter was to be sent (through channels) to Mr. W. Ebert, Administrator, Ball Memorial Hospital in Muncie, stating in effect that we are not consorting with laity on a subject which is only an adjunct to the best patient care. We felt as one commissioner stated it, "they already have their hooks in us." Dr. Johnson's motion to refuse such collaboration was seconded by Dr. Harris and unanimously accepted by acclamation.

Dr. Klepinger again brought up Resolution #11 from Knox County. Since the chair had agreed to do the basic research, it was decided to meet September 9, at which time such report will be available in more tangible form for consideration by the Commission in its last meeting prior to the State Convention.

Report of Sub-Committee on Education during the 1961-62 year

Dr. Harry Klepinger, chairman of this Sub-committee performed a yeoman's task in providing leadership for the Education Sub-committee. He continued where the committee left off at its last meeting Oct. 1, 1961, prior to the 1961 State Convention.

From that developed the Convention and Workshop—directed by Dr. H. Klepinger and assisted by Dr. John Mahoney of I.U. Medical School along with members of his Sub-committee. Doctors and Hospital Administrators from all over Indiana were invited to participate and make contribution towards its success.

There was a fee of $5.00 to defray expenses. It was a composite of ideas by Chiefs of Staff and Directors of Education provided to explore the subject of Medical Education in Community Hospitals with programs for both visiting and house staffs.

Workshop questions to stimulate thought are listed herein:

Workshop Suggestions

1. Correlation Conference as a teaching mechanism.
2. Pros and cons of a Director of Medical Education in the Community Hospital.
3. Current status of liability of hospital personnel, especially externs.
4. Responsibility of Intern Resident Committee to the Community.
5. A practical education approach to rural medicine in the small community hospital. Consider preceptorship.
6. Teaching value of research in the Intern Residency Training Program.
7. Stimulating interest in the teaching of basic medical science in the community hospital.
8. Ways of meeting the cost of education in the community hospital.

9. Medical school sponsored basic science teachers in the community hospital.
10. How can the medical school and the community hospital help one another with their educational program.
11. Should the medical profession become more interested in the education of nurses.

Questionnaires were sent to Chiefs of Staff prior to the Workshop regarding methods of solving graduate and postgraduate work in Indiana hospitals. Other subjects were hospital administration, medical student problems in the hospital. Approximately 50 attended besides those participating.

PROGRAM

The Indiana Conference on Medical Education
May 2, 1962
Indiana University Medical Center
Sponsored by the
Committee on Medical Education of the
Indiana State Medical Association

11:00 a.m. Welcome—Dean John Van Nuys
11:05 a.m. Introductory remarks—Dr. Harry Stimson, President, ISMA
11:15 a.m. Foreword—W. S. Wiggins, M.D., AMA Congress on Medical Education
11:45 a.m. Workshops
1:00 p.m. Lunch
2:00 p.m. Continuation of workshops
3:00 p.m. Critique—Discussion of "Why This Conference?" Questionnaire
3:20 p.m. Reports from workshops
3:30 p.m. No. 1
3:40 p.m. No. 2
3:50 p.m. No. 3
4:00 p.m. No. 4
4:10 p.m. No. 5
4:20 p.m. Summation — Dr. Walter Wiggins, AMA Commission on Medical Education and Hospitals
4:30 p.m. Termination of Conference.

Workshop Discussion Subjects

1. Current status of responsibility and liability of hospital personnel.
   Co-Chairmen: Chester Stayton, M.D., Indianapolis
   Donald S. Painter, M.D., Fort Wayne
2. A practical education approach to rural medicine in the small community hospital. Consider preceptorship.
   Co-Chairmen: Peter R. Petrich, M.D., Attica
   James Crain, M.D., Williamsport
3. Stimulating interest in the teaching of basic medical science in the community hospital.
   Co-Chairmen: Ed. Smith, M.D., Indianapolis
   Parker Beamer, M.D., Indianapolis
4. Ways of meeting the cost of education in the community hospital.
   Chairman: Jack Hall, M.D., Indianapolis
5. How can the medical school and the community hospital help one another with their educational program.
   Co-Chairmen: Don Close, M.D., Indianapolis
   Richard Weaver, M.D., Lafayette

Signed: HARRY KLEPINGER, M.D., *Sub-committee Chairman*
PETER R. PETRICH, M.D.
JOHN MAHONEY, Ph.D.
GEORGE T. LUCKMEYER, M.D.
W. D. CLOSE, M.D.
JACK H. HALL, M.D.

Conclusions:

1. The Commission covered a wide field of material relating to Medical Education.
2. The Workshops were excellent. They will be repeated next year.
3. One member of the Commission died during the year.
4. Three members had to resign for various good reasons when they could not attend meetings.
5. The Osteopathic problem was somewhat dormant. However, a first attempt has been made to put in writing a state-wide policy for Osteopaths. A guess is that it will require at least five years to complete it. Consequently a rough draft and minor samplings may prove helpful while trying to develop a definite policy in these days of social flux.
6. The Commission is loaded with continuation of all problems and consideration of new ones as they arise.

RALPH C. EADES, M.D., *Chairman;* Commissioner on Medical Education and Licensure
HARRY KLEPINGER, M.D., *Vice-chairman; Chairman,* Sub-committee on Education
ROBERT W. HARRIS, M.D., *Chairman,* Sub-committee on Licensure
FORREST LaFOLLETTE, M.D., *Secretary*
PETER PETRICH, M.D.
ELTON CLARKE, M.D.
JOHN STERNE, M.D.
JOEL SALON, M.D.
BOYD K. BLACK, M.D.
JAMES CARPENTIER, M.D.
I. S. TEMPLETON, M.D.
NORMAN F. RICHARD, M.D.
JAMES B. JOHNSON, M.D.
LAWSON J. CLARK, M.D.
FRANKLIN BEELER, M.D.

Resigned during the year:
JACK SHIELDS, M.D.
IRWIN HOSTETTER, M.D.
WILLIAM WISHARD, JR., M.D.
BASIL M. MERRELL, M.D., Deceased

Special Activities

During the past year the Commission on Special Activities has held two formal meetings—one in December, 1961—and the other in March of 1962. During the course of its activity, the Commission

had occasion to make a study of the Indiana Health Careers, Incorporated, and voted to recommend to the Executive Committee of the State Medical Association that a one-year contribution of $500.00 be made to that organization, and this without any stipulation or commitment as to further donation in subsequent years.

The Commission concerned itself with the problem of AMEF contributions and subsequently with the consolidation of the American Medical Educational Foundation with the American Medical Research Foundation. The Commission noted that both in the case of the Auxiliary to the Medical Association and the AMEF the full support of this Commission was available at any time.

Another subject which was explored by this Commission, was the matter of a Joint Institute of Patient Care. After due deliberation, the Commission decided that it approved of the idea of a Joint Institute for Patient Care in the Hospital. The recommendation was limited to patient care in the hospital. The recommendation was also made by this Commission that when such a Joint Institute is held there should be a representative from the American Medical Association present to represent the medical profession on the program.

The Commission also, during the course of its explorations and activity, voted to endorse the resolution from the headquarters office adopted by the American Medical Association and transmitted by the State of Illinois concerning participation in science fairs, future physician's clubs and medical explorer posts.

In looking forward to the matter of possible activity for this Commission in the year to come, one should recall that the House of Delegates has made two assignments to this Commission on which actions have not been completed. One was to make a study of the idea of developing means to increase interest in the attendance at county medical society meetings and the other dealing with the method of educating physicians on the principles of ethics and indoctrination programs for new physicians. At our last meeting, after discussion, it was taken by consent, that the Commission would make a survey of the component societies on these two questions and the secretary was to develop a questionnaire and submit it to the Chairman of this Commission for his approval before mailing to the component societies.

ELI GOODMAN, M.D., *Chairman*
NORMAN M. SILVERMAN, M.D., *Vice-Chairman*
EARL W. BAILEY, M.D., *Secretary*
JOSEPH E. COLEMAN, M.D.
C. PHILIP FOX, M.D.
GEORGE A. MAY, M.D.
JOHN SMITH, M.D.
ROBERT H. K. FOSTER, M.D.
JACK M. WALKER, M.D.
ROBERT H. WISEHEART, M.D.
ARTHUR KUHN, M.D.
DAVID C. GASTINEAU, M.D.
GUY B. INGWELL, M.D.
RALPH M. STEFFY, M.D.
FREDERICK W. BIGLER, M.D.

Aging

The Commission's year has been one of activity in the complex field of aging. Six meetings have been held of the full Commission, in addition to three meetings of a special sub-committee on Home Care for the Aged. Individually, our chairman has held important talks with representatives of organizations who are faced with solving common aging problems, namely—The Indiana State Dental Association, the Indiana Hospital Association, the Indiana State Nursing Home Association and the Indiana State Medical Association.

The Commission endorses the formation of an Indiana Joint Council to improve the health care of the aged. There are 31 similar councils operative in other states.

A news release to the press and telecast news media was made through the headquarters office concerning activities undertaken by the Commission for our aging population.

The Commission devoted the major portion of its time to the implementation of the four resolutions on aging which had the administrative blessing of the 1961 House of Delegates.

Independent Living Rehabilitation has been emphasized in all deliberations of our committee sessions for the reason that the concept includes organized home care, institutional care such as county homes and nursing homes, and rehabilitation.

A sub-committee conducted a survey to obtain basic information on organized home care programs in the United States. A syllabus on Organized Home Care in Indiana has been developed as a result of this study.

In order that the Commission could evaluate how physicians respond locally if such a program is begun in their own community, coordinated home care services were explained to the staff of Mercy Hospital, Elwood, July 9, 1962. (Plans are made to do this.)

The Chairman wishes to thank all members of his Commission for their excellent work this year, and particularly the sub-committee chairman, Doctor Offutt.

NATHAN L. SALON, M.D., *Chairman*
LLOYD L. HILL, M.D., *Vice-Chairman*
FRANK M. HALL, M.D., *Secretary*
L. JOHN VOGEL, M.D.
C. PHILIP FOX, M.D.
DON LaFOLLETTE, M.D.
HARRY R. BAXTER, M.D.
WAYNE A. CROCKETT, M.D.
W. U. KENNEDY, M.D.
WARREN ANDREWS, M.D.
RALPH E. PLOUGHE, M.D.
F. S. CROCKETT, M.D.
GEORGE M. YOUNG, M.D.
N. C. JOHNS, M.D.
ANDREW C. OFFUTT, M.D.

Resolutions

Resolution No. 1

Introduced by: MIAMI COUNTY MEDICAL SOCIETY

Subject: TO AMEND CHAPTER IV: HOUSE OF DELEGATES, OF THE ISMA BYLAWS

WHEREAS, organized medicine should be a truly representative form of government; and

WHEREAS, the delegates to the Indiana State Medical Association's House of Delegates are merely representatives of the constituent members of the various county medical societies; and

WHEREAS, each member of the ISMA should have the right to know how his representative did, in fact, vote on issues of importance brought before the House of Delegates; and

WHEREAS, under the existing system being used by the House of Delegates, in that oral or standing votes are not made as a matter of record how each member of the House of Delegates did, in fact, vote.

THEREFORE, BE IT RESOLVED, that Chapter IV of the Bylaws of the ISMA be amended by adding a new Section 8 as follows:

Section 8: The *FINAL* vote on any issue calling for changes in dues or dues structure, changes in the Constitution and Bylaws or whenever a division of the House is called for, is required to be by an individually accountable vote, and each member's vote will be permanently recorded and published in the *Journal*, and no suspension of this rule will be allowed on the *FINAL* vote of such an issue. Voting in this manner will be done as with any division of the House except that the tellers will collect "aye" or "nay" ballots bearing the name and county of the voting delegate. Recording of the individual ballots may be done anytime after the actual voting has taken place but will be recorded for publication in the *next issue of the Journal.*

BE IT FURTHER RESOLVED THAT this resolution be formally introduced to the ISMA House of Delegates at their next annual convention at French Lick, Indiana, in 1962 by the Miami County Delegate; but prior consideration by the ISMA Commission on Constitution and Bylaws should be given as officially ordered by vote of the Annual 1961 meeting of the House of Delegates.

BE IT FURTHER RESOLVED THAT this resolution be published in the Convention Issue of the *Journal* in 1962 for the consideration of the membership-at-large in order that they may advise their delegate concerning this resolution.

Resolution No. 2

Introduced by: JAY COUNTY MEDICAL SOCIETY

Subject: INCORPORATION OF ONE OR TWO YEARS OF PRACTICE IN SMALL COMMUNITIES INTO INTERN AND RESIDENCY PROGRAMS

RESOLVED:

That the Indiana State Medical Society should consult or plan with the Indiana University School of Medicine to incorporate one or two years of practice in small communities into their internship and residency programs. The variety of medical problems encountered would be invaluable whether the graduate intended to become a specialist or a general practitioner.

The following reasons for submitting this resolution are:

1. It is becoming increasingly difficult to attract interns or residents to small communities. These areas offer much in experience, in remuneration, and in assisting young doctors to gain in civic and social stature.
2. It should be possible to offer these graduates sufficient salary for combined sources (i.e., University scholarships, state and local medical society educational funds) so that they would be quite willing to participate in this program.
3. Many small communities do not have sufficient doctors to serve them. Those few doctors would welcome such assistance. There will always be a requirement for general practitioners in rural areas. If we are to improve medical care for the general population, it would be well to establish a rotating service to these areas. This rotation service could include a specified time with a surgeon, pediatrician, or with the general practitioner doing obstetrics, office work, house or hospital calls.
4. This approach to the "grass roots" medical practice would be a strong force in combating socialized medicine. Each doctor who serves perhaps several thousand patients yearly can exert much more political influence because of his contribution both professionally and as a responsible citizen.
5. The demands on the general practitioner are numerous but the personal satisfaction that comes with such demands is rarely found elsewhere. If the young doctor concludes his rotating community service and still wishes to continue a residency, he would be encouraged to do so. He would return to his hospital service with confidence and with more awareness of all the factors that influence the patient who is ill or injured.

Several other states have instituted such a training program. We believe this system would be of great benefit to the graduate, to the people in rural areas, and to the doctor in general practice.

Resolution No. 3

Introduced by: TIPPECANOE COUNTY MEDICAL SOCIETY

Subject: IMMUNIZATION OF ALL CHILDREN FIVE YEARS OF AGE OR YOUNGER FREE OF CHARGE

WHEREAS, Dr. F. J. L. Blasingame was quoted in the public press as stating in a telegram to Representative Oren Harris and speaking as the Executive Vice-President of the AMA stated, "the Association indorses 'in principle' HR 10541, an administration-sponsored bill to provide immunization against communicable diseases to all children five years of age or younger without cost," and

WHEREAS, this principle is in direct opposition to the previously expressed policy of the AMA to provide such services for those in need, and

WHEREAS, if this principle is followed, it will lead to chaos in the realm of good immunization procedure, it will be inimical to the best standards of medical practice, and it will necessarily promote the intervention of Health Departments into the practice of medicine and will interpose such departments between the patient and the physician, and

WHEREAS, this action was taken without consultation with the House of Delegates of the AMA (which would be readily available in June 1962) but with the presumed approval of the Board of Trustees of the AMA, and

WHEREAS, it has been the time-honored principle of Doctors of Medicine to provide these services without cost to those in need, and

WHEREAS, the current system of providing immunizations by the medical profession has satisfactorily immunized a large segment of the population to a point that preventable communicable disease has reached an extremely low rate;

THEREFORE, BE IT RESOLVED, that the Tippecanoe County Medical Society goes on record as stating that it does NOT approve the action of Dr. F. J. L. Blasingame, speaking as a representative of the medical profession even with the presumed approval of the Board of Trustees of the AMA (and it is the feeling of the members of this society that most members of the AMA likewise do not approve such action), and

BE IT FURTHER RESOLVED, that the Tippecanoe County Medical Society expresses its opposition to HR 10541 and requests other societies to study this problem and express their opinions to the ISMA and to the AMA, and

FURTHER BE IT RESOLVED, that the Indiana delegates to the House of Delegates of the AMA be instructed to introduce a resolution objecting to the arbitrary statement made by Dr. F. J. L. Blasingame and those who approved such an authoritative, bureaucratic statement in the name of the AMA members, and further that these individuals be censured by the House of Delegates for such action, and

BE IT FURTHER RESOLVED, that this resolution be presented at the next meeting of the House of Delegates of the ISMA.

Resolution No. 4

Introduced by: GRIEVANCE COMMITTEE

Subject: THE BETTER USE OF CONFIDENTIAL MEDICAL COMMUNICATION CHANNELS IN THE INTEREST OF PUBLIC RELATIONS AND MEDICAL DISCIPLINE

WHEREAS, the Grievance Committee of the Indiana State Medical Association recognizes the increasing responsibility of its public relations function and interprets this function as best discharged by fostering conditions which favor the personal resolution of patient complaints by the physician against whom the complaint is lodged, and

WHEREAS, should the conflict between the patient and the physician not be thus resolved the Grievance Committee routinely requests the appropriate County Medical Society to attempt adjudication, and

WHEREAS, only after these steps have failed or been waived does the Grievance Committee of the ISMA proceed with adjudication efforts, and

WHEREAS, it is accordingly imperative that the Grievance Committee be kept informed of the facts of County Medical Society discipline that it may proceed with prudence in behalf of both the patient and the physician;

THEREFORE, BE IT RESOLVED, that the Secretary of each County Medical Society shall, after December 31, 1962, mail to the Chairman of the Indiana State Medical Association Grievance Committee a confidential full report within ten (10) days following any official action of the County Medical Society which directs that one or more of its members be: 1) Censured, 2) Suspended or 3) Expelled from membership. Failure to file such a report within the specified time shall be reported by the Chairman of the Indiana State Medical Association Grievance Committee to the Council for such action as it may deem appropriate.

Resolution No. 5

Introduced by: TIPPECANOE COUNTY MEDICAL SOCIETY

Subject: BLUE CROSS WITH OPTIONAL BLUE SHIELD FOR PHYSICIANS AND DEPENDENTS

WHEREAS, it has been the time-honored cus-

tom of the medical profession to treat physicians and their immediate families without charge, and

WHEREAS, this has helped to maintain a high ethical relationship between physicians, and

WHEREAS, the entrance of a third party (insurance) into the relationship has a strong tendency to disrupt the warm relationship and fellowship that exists in the medical profession; therefore

BE IT RESOLVED, that the Indiana State Medical Association request of Blue Cross and Blue Shield that a Comprehensive Blue Cross policy be issued without an accompanying Blue Shield policy, if desired by the physicians, and

BE IT FURTHER RESOLVED, that the medical profession be encouraged to return to the principles of professional courtesy as it was practiced in the past.

Resolution No. 6

Introduced by: ST. JOSEPH COUNTY MEDICAL SOCIETY

Subject: LEGISLATION TO ESTABLISH STANDARDS OF QUALITY FOR OPTICAL LENSES

WHEREAS, at the present time, there are no legislative required standards for the quality of optical glass nor optical lenses in the state of Indiana, and

WHEREAS, many times inferior quality glass is used for optical lenses because there are no standards of control, and

WHEREAS, it is difficult for ophthalmologists and optometrists to determine inferior optical lenses without specialized equipment, and

WHEREAS, the people of Indiana are, in most instances paying for and are entitled to receive first quality optical lenses which without proper standards adequately controlled may not be true, and

WHEREAS, in order to protect the public it is essential that standards of quality for optical lenses be established by legislative action,

NOW, THEREFORE BE IT RESOLVED: That the St. Joseph County Medical Society go on record as favoring legislation in the state of Indiana which will establish a standard of quality for optical lenses, and

BE IT FURTHER RESOLVED: That a copy of this resolution be presented by the Delegates of the St. Joseph County Medical Society to the Indiana State Medical Association House of Delegates at their 1962 annual meeting with the recommendation that the Indiana State Medical Association present a standardization of optical lenses bill to the next session of the Indiana State Legislature, and

BE IT FURTHER RESOLVED: That the Indiana State Medical Association be urged to take every step possible to get such legislation approved.

Scientific Exhibits

DONALD G. MASON, M.D., *Angola, Chairman*

INDIANA OCCUPATIONAL THERAPY ASSOCIATION

Exhibitor: Indiana Occupational Therapy Association.

Attendants: Members of Occupational Therapy Association of Indiana.

The exhibit of the Indiana Occupational Therapy Association is a two panel, free standing display. The upper panel lists the disability areas in which Occupational Therapy functions. Metal rods lead the viewer's eyes to photographs illustrating therapists at work. Racks contain pamphlets published by the American Occupational Therapy Association regarding the profession of Occupational Therapy.

OCCLUSIVE RHEUMATIC ARTERITIS IN THE BRAIN AND OTHER ORGANS IN PATIENTS WITH RHEUMATIC VALVULAR HEART DISEASE

Exhibitor: Walter L. Bruetsch, M.D., Clifford L. Williams, M.D., Central State Hospital, Indianapolis.

Co-exhibitor: Indiana Heart Association.

Attendants: Walter L. Bruetsch, M.D., Clifford L. Williams, M.D.

In the great majority of patients with rheumatic cardiovalvular disease, the rheumatic process remains confined to the heart valves and appears to heal completely. In some instances, however, the rheumatic infection continues throughout the entire life and the vascular system becomes involved in the form of an obliterating arteritis, with a predilection for small arteries.

The two most important organs, exhibiting occasionally widespread rheumatic vascular involvement, are the brain and the kidneys.

The exhibit consists of photographs of brains, hearts and kidneys of patients with rheumatic valvular heart disease, in whom such an involvement of the vascular system has taken place. Photomicrographs illustrate the rheumatic recurrent arteritis, which at times coincides with similar recurrences on the heart valves.

Pathologic material will also be available, demonstrating rheumatic embolization of the brain and organs, which is another important late sequel of rheumatic fever, occurring in advanced mitral stenosis, complicated by atrial mural thrombosis.

THE CLINICAL VALUE OF ROUTINE SERUM CALCIUM ANALYSIS

Exhibitor: Charles E. Boonstra, M.D., Bluffton, Ind.

Co-exhibitors: Charles E. Jackson, M.D., Harold D. Caylor, M.D., Pierre C. Talbert, M.D., Caylor-Nickel Clinic, Bluffton, Ind.

Attendants: Pierre C. Talbert, M.D., Charles E. Boonstra, M.D.

The exhibit summarizes the results of serum calcium analysis on 11,991 consecutive individuals presenting themselves to our general medical clinic for clinical evaluation in a 29 month period. All individuals were included whether they came for a periodic health examination or because of illness, as in the majority.

All initial determinations were done by an ammonium purpurate method adapted for use in the AutoAnalyzer. Calcium values ranged from 5.1 through 16.9 mg % but 99% of the values were from 8.3 through 10.9 mg %, and 95% of the values were from 8.8 through 10.4 mg %, with a median of 9.6 mg %.

When the initial calcium level of a patient fell outside the 95% range, repeat determinations were usually made by the same method and, often by other methods, as well. Also, determinations of serum proteins, serum phosphorus and tubular reabsorption of phosphorus were made when appropriate.

The knowledge of a high calcium level significantly contributed to making the diagnosis in the following conditions: Hyperparathyroidism, hypoparathyroidism, milk-alkali syndrome, multiple myeloma, hypercalcemia secondary to malignancy, and hypervitaminosis D.

We are continuing to investigate some of the patients with levels of calcium in the abnormal range without establishing definite diagnosis, as yet.

AMNIOTIC FLUID EMBOLISM

Exhibitor: Peter F. Stonier, M.D., William W. Hurteau, M.D., Methodist Hospital, Indianapolis.

Attendant: Peter F. Stonier, M.D.

Amniotic fluid embolism is a cause of sudden death during labor in a significant number of cases.

The autopsy findings in a fatal case of amniotic fluid embolism are used to illustrate the pathologic abnormalities in this condition. Color transparencies illustrate the pathology and charts review the incidence and clinical manifestations.

INFLAMMATORY POLYPS OF THE INTESTINAL TRACT

Exhibitor: Carol A. Klepinger, M.D., Edwin C. Pontius, M.D., Methodist Hospital, Indianapolis.

Attendant: Carol A. Klepinger, M.D.

Inflammatory polyps of the large intestine are not uncommon in childhood and are occasionally found in adults. Similar inflammatory polyps involving the small bowel appear very rarely. The exhibit will present the pathogenesis, classification, clinical symptoms, differential diagnosis and therapy of inflammatory polyps of the intestinal tract. Illustrative cases of small bowel and large bowel inflammatory polyps in children will be presented by history, x-ray duplication and photomicrographs. The differential diagnosis will point up the necessity for recognition since these polyps may be treated surgically in a conservative manner in contra-distinction to neoplastic polyps at similar sites.

YOU CAN REDUCE

Exhibitor: AMA—Department of Foods and Nutrition, Chicago, Ill.

Attendant: Judith Winston.

Eat wisely, eat moderately. These are the simple rules of reducing.

Pointers for reducing—including a chart showing the ideal weight for a person's height—are illustrated in this exhibit on reducing. The exhibit explains the rules for reducing, as well as telling the caloric values of certain foods.

PERCUTANEOUS ARTERIOGRAPHY IN THE DIAGNOSIS OF NEOPLASTIC OR ARTERIOSCLEROTIC DISEASE ENTITIES OF THE HEAD AND NECK AREA, KIDNEYS, AND BLADDER

Exhibitor: Erich K. Lang, M.D., William M. Anshutz, M.D., Methodist Hospital, Indianapolis.

The clinical use of percutaneous retrograde arteriography in the diagnosis of arteriosclerotic disease entities and tumors of the head and neck area is illustrated on roentgenograms. Characteristic roentgenograms of arteriographic studies on patients suffering from scalenus anticus syndrome are shown. The classical arteriographic manifestations of kidney, suprarenal, bladder and pelvic tumors are represented by one sample each. The entity of hypertensive renal disease is illustrated by a classical case showing a plaque in a renal artery. The advantages and diagnostic possibilities offered by percutaneous arteriography in the diagnosis of these entities is summarized in the table. In many cases this method offers the only mode of definitive diagnosis short of surgical exploration. The low incidence rate of complications and the easy performance of these studies is stressed.

CYSTIC FIBROSIS OF THE PANCREAS

Exhibitor: William F. Rowley, Jr., Children's Memorial Hospital, Chicago.

Co-exhibitor: David Yi-Yung Hsia, Chicago.

TREATMENT OF LYMPHEDEMA OF THE ARM

Exhibitors: Richard C. Britton, M.D., Paul A. Nelson, M.D., The Cleveland Clinic, Cleveland 6, Ohio.

Analysis of etiologic factors in 114 patients with lymphedema of the arm after radical mastectomy, 94 without local recurrent cancer, suggest that infection is of primary importance. Radiodermatitis, late fibrosis in the axilla due to radiation or surgery and thrombosis or functional obstruction of the axillary vein are contributing factors. Localized induration and barely perceptible warmth in the arm and forearm are consistent physical findings of chronic subclinical infection which disappear with appropriate antibiotic treatment. Control of infection, instruction in hand care, functional rehabilitation of shoulder girdle and arm, and provision of a fitted elastic sleeve were effective in controlling edema in 93% of the patients without local cancer and in 80% of the patients with local cancer.

POSTOPERATIVE EMESIS—ETIOLOGY AND CONTROL

Exhibitors: C. Taylor, M.D., V. K. Stoelting, M.D., I. U. Medical Center, Indianapolis, Indiana.

Attendant: Cyril Taylor, M.D.

The central nervous control of emesis has been well established with animals. A vomiting center and an associated chemoreceptor trigger zone, situated in the medulla, receive impulses from the loci which initiate the viscero-somatic components of emesis. There are numerous factors which contribute to the production of post-operative emesis. In any program designed to overcome this complication, these factors must receive due consideration, since some of them are amenable to control. When they are used by themselves the degree of success will be less, since no drug can be expected to suppress the effects of a multiplicity of factors. These drugs produce clinically important side effects, which may be more harmful than emesis. A reduction in the dose of antiemetics decreases the incidence of side-effects, but still allows a satisfactory degree of antiemetic activity.

A PHENYLKETONURIA TESTING PROGRAM IN A LOCAL HEALTH DEPARTMENT

Exhibitor: Elkhart County Health Unit, Elkhart, Indiana.

Attendant: Paul H. Martin, M.D.

This exhibit demonstrates the two-phase Phenylketonuria (PKU) testing program conducted by the Elkhart County Health Unit.

First; testing of newborns in Elkhart County: when the infant is three weeks of age the parent is sent a PKU kit. This kit consists of:

1. A letter explaining briefly what PKU is and how to test for the detection of this condition (moistening the Phenistix in a wet diaper).

2. A small packet of Phenistix; this includes a color scale for comparison with the moistened stick.
3. An addressed postal card to be returned to the Health Unit, noting the result of the test. This card carries the local registry number of the infant to be tested. Result of the test is noted on the retained copy of the Birth Certificate.

We have had 80% co-operation; this compares favorably with programs conducted elsewhere.

Second; case finding method of PKU detection by the testing of retarded children and adults. This exhibit shows the study of one family group, to the fifth generation, in which three previously undiagnosed PKU cases have been found.

EVERYDAY PROBLEMS IN DIABETES: 201 CRYSTAL-CLEAR ANSWERS

Exhibitor: Indianapolis Diabetes Association, Inc., Indianapolis 4, Ind.

Attendant: Walter Chroniak, M.D.

The scientific exhibit "Everyday Problems in Diabetes: 201 Crystal-clear Answers" gives the steps to routine diagnosis on one side wall and the general guide to therapy on the other side wall. The center panel is an electronic exhibit which answers questions to 201 problems in diabetes on etiology, heredity, diagnosis, diet, insulin, oral agents, laboratory methods, management, complications, juvenile diabetes, pregnancy, drugs, and miscellaneous.

There will be samples of educational materials on display: the Journal *Diabetes* for professional persons; the ADA Forecast magazine, *Cookbook for Diabetics*, *Meal Planning with Exchange Lists*, and *Facts about Diabetes* for patients. Descriptive leaflets and order forms will be available. These materials will be furnished by the American Diabetes Association.

The Indianapolis Diabetes Association will also display materials relating to the annual Diabetes Detection Week, the third week in November.

THE SPATULAS—A NEW CONCEPT IN OBSTETRICS

Exhibitors: Hans E. Geisler, M.D., Harmon Lushbough, M.D., Methodist Hospital, Indianapolis, Indiana.

Attendants: Hans Geisler, M.D., Harmon Lushbough, M.D.

Although in trained hands obstetrical forceps are relatively safe, even the specialist will occasionally injure a baby during a difficult delivery. Therefore, man has strived for years to produce the perfect obstetrical instrument. A revolutionary device designed for this very purpose are the spatulas developed by Professor Thierry. Although used in France for a number of years, they are unknown in the United States.

Truly "les mains de fer" the spatulas are an extension of the obstetrician's hands. Four primary advantages over conventional forceps stand out:

1) There can be no compression of the fetal cranial cavity.
2) There are no marks left on the infant's face.
3) Maternal tissues are pushed aside, not stretched and separated from their ligamentous and tendinous insertions.
4) Spatulas are safer than forceps in untrained hands.

Our exhibit is intended to demonstrate the safety, ease of application and technique of proper usage of the spatulas. Diagrams, illustrations, photographs and a continuous film strip will serve as visual aids.

STATUS ASTHMATICUS

Exhibitor: Methodist Hospital Graduate Medical Center, Indianapolis, Indiana

Attendants: John T. Haynes, M.D., June Howland, M.D.

This is a series of posters describing the phenomenon known as Status Asthmaticus. It will start with definitions and briefly outline causes, pathology and management. There will be one large diagrammatic drawing. We hope to present a clinically practical management regime.

NEW CONCEPTS FOR THE CARE OF THE AGED AND AGING

Exhibitor: Commission of Aged and Aging, Fort Wayne, Indiana

Attendants: Harry R. Baxter, M.D., N. L. Salon, M.D., Robert Yoho, Ph.D., and others.

Exhibit will explain by word or pictures the philosophy of independent living, home care for the aged and chronically ill and possibly something about nursing homes and county homes.

VECTOR ELECTROCARDIOGRAPHY

Exhibitor: Captain David O. Wilson (MC), Noble Army Hospital, Fort McClellan, Alabama

Co-exhibitor: Jack H. Hall, M.D., Methodist Hospital, Indianapolis

Attendants: Captain David O. Wilson, M.D., Jack H. Hall, M.D., Glen D. Ley, M.D.

This is a definition of a vector. Line drawings will be used to illustrate this. Also line drawings of the heart in color showing the manner of expression of vector forces in the heart in the frontal, sagittal and horizontal planes will be completed. We hope these diagrams will point out the importance of this as a teaching tool and a diagnostic tool in studying the electrical activities of the heart. Illustrative case histories as well as electrocardiograms and vector cardiograms will be pre-

sented. Demonstrations of technique of recording and equipment will be available at the booth.

CORONARY ANGIOGRAPHY

Exhibitor: Jack H. Hall, M.D., Methodist Hospital, Indianapolis

Co-exhibitor: David Littmann, M.D., West Roxbury Veterans Administration Hospital, Boston, Massachusetts

Attendants: Jack H. Hall, M.D., Captain David O. Wilson (MC), Rex Thoman, M.D.

This exhibit is planned to demonstrate coronary angiograms obtained by a loop catheter. A technique used to obtain coronary artery angiograms on around 250 patients will be displayed. It is planned to mount a catheter and needle and guide wire on the display box. X-rays demonstrating coronary angiograms as well as outlines of clinical case histories and electrocardiograms will be mounted to emphasize the effectiveness of coronary angiography as a diagnostic technique. At present it is planned to use a display case that we have specially prepared for this exhibit. This is self lighted and the panels will be illuminated for the presentation of the case histories and electrocardiograms. Drs. Littmann and Hall have had the opportunity of observing some patients who have had severe coronary artery disease demonstrated by coronary angiography. They subsequently had complete occlusion with clinical myocardial infarctions. Follow-up coronary angiography strikingly demonstrates the presence of new collateral circulation. Another case history that is planned to be used is that of a man who had a history compatible with angina and with one myocardial infarction. The transaminase as well as the electrocardiograms were equivocal in substantiating these diagnoses. It is important for the maintenance of the patient's employment that the case be settled and coronary angiograms demonstrated that the patient had very patent coronary arteries and that indeed his myocardial infarction-like syndrome was probably secondary to degenerative cervical arthritis and cervical root compression. Another planned demonstration is that of a set of normal angiograms. An outline of the indications and contra-indications for this procedure will be presented.

INDIANA AGENCY FOR THE BLIND

Exhibitor: Indiana Agency for the Blind, Indianapolis

Attendants: Howard C. Carroll, Fred J. Tolson

The Indana Agency for the Blind has the responsibility of serving the adult blind in Indiana. Our display will show maps indicating the number of blind in each county in the state. Our charts will show number of blind persons in each county according to age. We will show slides of rehabilitated blind persons working on their respective jobs. The talking book machine will demonstrate how the blind can read books of their choice on records, etc.

HEALTH CAREERS

Exhibitor: LaPorte County Medical Society

Attendants: Barbara Backer, M.D., G. P.Backer, M.D., G. O. Larson, M.D., and Tom Armstrong, M.D.

A Health Careers Day was put on for the LaPorte County Schools which was a complete success. Over 20,000 people viewed the exhibit during a two day period. Many organizations across the country also visited the exhibit including Indiana University Medical School, Notre Dame University, Argonne Laboratory United States Navy, United States Army and many other institutions. The Space Kitchen by the Whirlpool Corporation was also displayed. It was felt this stimulated many students to think seriously of some of the many health careers which were presented. It was also felt to be a valuable public relations endeavor for organized medicine. The material shown in this booth will help any other group to organize a similar program.

FLYING PHYSICIANS ASSOCIATION

Exhibitor: Indiana Flying Physicians Association.

Attendants: Edward Miller, M.D., Paul Sparks, M.D., and Dan L. Urschel, M.D.

DOCTOR, IS A LAYMAN YOUR "CONSULTANT" IN LABORATORY MEDICINE?

Exhibitor: Indiana Association of Pathologists, Committee on Pathology Information.

Attendants: Robert L. Bell, M.D., Jene R. Bennett, M.D., Boyd Black, M.D., Leon L. Blum, M.D., J. Patrick Gillotte, M.D., William W. Hurteau, M.D., Wei-Ping Loh, M.D.

This exhibit, sposored by the Illinois Society of Pathologists, endorsed and supplemented by the Indiana Association of Pathologists, depicts the dangers to patients as the result of improper laboratory practices. It emphasizes the essential requirements for properly conducted laboratory services and gives the reasons why they remain a medical professional responsibility.

PHENYLKETONURIA—DEFINITION AND DETECTION

Exhibitors: Indiana State Board of Health and Indiana Department of Mental Health.

Attendants: Verne K. Harvey, Jr., M.D., E. Frances Zeps, M.D., and Malcolm McLelland, of Indiana State Board of Health; Robert Branson, Indiana Department of Mental Health.

Phenylketonuria (PKU) is an inherited metabolic disorder which, if not detected and not treated in the early weeks or months of life, will commonly produce mental retardation. Every baby should have a urine test between three and six weeks of age to determine if the disorder is pres-

ent. Urine tests are rarely positive before two weeks of age and may not be positive until six weeks of age. Ferric chloride solution forms the basis for most tests used.

PKU is not a common disorder, but, because of the severe brain damage that may result in undetected cases, testing should be done. Testing is relatively simple and inexpensive.

The exhibit shows the inheritance pattern of phenylketonuria and simulated samples of positive urine will be used to demonstrate testing.

DEMONSTRATION AND STAGING OF BLADDER TUMORS ON ARTERIOGRAMS

Exhibitor: Erich K. Lang, M.D., Methodist Hospital, Indianapolis.

Co-Exhibitors: William N. Wishard, Jr., M.D., Myron Nourse, M.D., John Mertz, M.D. and William Anshutz, M.D.

Percutaneous retrograde arteriography (Seldinger Technique) is used to demonstrate bladder tumors. The method gives an excellent appreciation of the tumor size and depth of penetration of the tumor into the bladder wall or perivesical fat tissue. This essential information is difficult to obtain by any other clinical examination and serves as a guide for the definite surgical or radiotherapeutic approach to control this tumor.

PERCUTANEOUS FEMORAL RENAL ANGIOGRAPHY

Exhibitor: Lonnie W. Howerton, M.D., Louisville, Ky.

Co-Exhibitors: Robert Lich, Jr., M.D., Louisville, Thomas Marshall, M.D., and Albert H. Joslin, M.D., Louisville General Hospital, Louisville.

Attendants: Robert Lich, Jr., M.D., Albert H. Joslin, M.D., and L. W. Howerton, M.D.

Percutaneous catheterization of femoral artery and retrograde passage of the catheter to the aorta has proven exceptionally safe and effective in clearly delineating the renal vascular pattern, and has thus proven particularly effective in defining renal vascular lesions and mass lesions of the kidney.

The technique is described and cases are presented.

THE ROLE OF THE P. T. A. IN COMMUNITY HEALTH PROGRAMS

Exhibitor: Indiana Congress of Parents and Teachers, Incorporated, Indianapolis

Co-exhibitors: Thomas O. Middleton, M.D., Health Chairman, and Mrs. Don Herrin, President, Indiana Congress of Parents and Teachers, Inc.

Attendants: Thomas O. Middleton, M.D.; local P. T. A. Health Chairmen assisting.

This exhibit is intended to convey the relationship between the local unit Parent and Teachers Association and the professional personnel and health agencies in developing and implementing plans for improved community health. The program of the Indiana Congress of Parents and Teachers is presented. Ways in which this can be implemented at the local level are indicated. The Declaration of Principles and Purposes of the National Congress of Parents and Teachers in matters relating to health are presented. The role the physician might take in the activities of the Parent-Teacher Association are suggested. By this means the physician will better understand the activities of the Parent-Teacher Association in his community. He will be better able to assist them in developing sound programs for health education in the schools and for realistic support of community health projects. Brochures are available.

Technical Exhibits

Booth **Company and Products**

38 **ABBOTT LABORATORIES**
North Chicago, Illinois
Abbott Laboratories invites you to visit our exhibit. Our representatives will be happy to answer any questions you may have concerning our leading products and new developments.

118 **ANDERSON PHARMACEUTICALS**
(Div. M & R Dietetic Laboratories)
Columbus 16, Ohio
Richard W. Gast, Ernest Adams, Len Schweitzer
ANDERCID ANTACID WAFERS: this unique new product incorporates effective antacid medication in the unusually palatable form of crisp, oven-baked wafers. The refreshing taste and texture encourage patient acceptance when intermittent use is indicated and help to ensure maintenance on medication when long-term antacid therapy is necessary.

43 **ARNAR-STONE LABORATORIES, INC.**
Mount Prospect, Illinois
Roy J. Meilner, Wm. H. Snider, Wayne Snyder
ARNAR-STONE LABORATORIES, INC., U. S. Standard Products Co. Division, will feature:
AMERICAINE, topical anesthetic in ointment and aerosol form.
ISOCLOR TIMESULE, decongestant—antihistamine (a new sustained time release form of the Isoclor formula).
TETRASULE-80 TIMESULE, a new time release dosage form of Pentaerythritol Tetranitrate.

30 **ASSOCIATION OF AMERICAN PHYSICIANS AND SURGEONS.**
See and hear benefits, advantages and aids to improved patient relationships from the Association of American Physicians and Surgeons; visit booth #30.

119 **AYERST LABORATORIES**
Arlington, Virginia
Leo R. Martin, Jack Minton, Frank Bojarski
"MESULFIN," For Urinary Tract Infections.
Attacks uropathogens directly where located.
May be used continuously with no side effects.
Helps to prevent development of resistant uropathogens.

26 **BLACK & SKAGGS ASSOCIATES**
Consultants to the Medical Profession for 30 Years
John Hogan of Battle Creek, Harold Neff of Fort Wayne and Paul Evans of Indianapolis will welcome Indiana physicians at Booth #26.
PM clients are urged to bring in their friends who want to discuss their problems relating to the BUSINESS SIDE OF MEDICINE.

28 **BREATH O'-LIFE OXYGEN (Eff Tee Sales Co.)**
Indianapolis, Ind.
Larry Stillerman, F. T. Stillerman, Wm. Eagen, John Holmes, Jack Jacobs, Dr. C. Kopas
BREATH O'-LIFE OXYGEN, world's first facial-contact operated, controlled-flow emergency administration set with over an hour's supply in a 32-ounce, 4-inch steel sphere, will be exhibited by Eff Tee Sales, Indianapolis.

23 **BROOKS APPLIANCE COMPANY**
Chicago 2, Illinois
W. C. Ayer, R. L. Ayer
The Brooks Appliance Company will exhibit and describe in detail the technique of applying the combination pressure bandage. The moist medicated Primer Bandage plus the Dalzoflex Elastic Adhesive Bandage which are used in treating leg ulcers and phlebitis.

Booth **Company and Products**

As distributors of Anatomical Supports, our representatives will be in attendance to answer questions and explain in detail our Sacral, Sacral-Lumbar and Dorsal-Lumbar supports. Also, the Dr. Hackett "NATIONALLY APPROVED" "C" Sacral belt, The Dr. Hackett Posture support, Flexion and Extension Cervical Collar, Cervical Traction Outfit, Elastic Stockings, Nulast Elastic Crepe Bandages and Surgical Instruments will also be displayed.

113 **CARNATION COMPANY**
Los Angeles 36, Calif.
Carnation Company cordially invites you to visit Booth #113, where Medical Representatives will be pleased to welcome you.
Recent literature and information regarding Carnation Evaporated, Carnation Instant Non-Fat and Carnalac are available.

4 **CIBA PHARMACEUTICAL COMPANY**
Summit, N. J.
DIANABOL is a low-cost anabolic agent with an exceptionally low incidence of side reactions. It promotes weight gain in the form of lean tissue, improves appetite, increases strength and renews vigor in underweight, devitalized patients. On the basis of experimental and clinical results, DIANABOL can be recommended as an effective anabolic agent to counteract various catabolic states.

108 **THE COCA-COLA COMPANY**
Atlanta, Georgia
James T. Beers, Manager Convention Bureau
Ice-cold Coca-Cola served through the courtesy and cooperation of the Coca-Cola Bottling Company, Inc. of Jasper and The Coca-Cola Company.

40 **CURTIS & FRENCH, INC.**
Indianapolis 2, Indiana
D. F. "Jack" Curtis and C. E. "Mac" McCain will be on hand to welcome all our old friends and many new ones. New items of interest will be available for your inspection.

17 **DAIRY COUNCIL**
Evansville, Fort Wayne, Indianapolis, Kokomo-Peru, and St. Joseph Valley
Mrs. Barbara Morley, Mrs. Lois Smith, Mrs. Hazel Burnett, Mrs. Lillian Eidson
Dairy Council Health Education Materials, available for use with your patients, will be on display.

114 **DE PUY MANUFACTURING CO., INC.**
Warsaw, Ind.
Once again we are privileged to show representative samples of our complete line of splints, fracture equipment, traction and orthopedic supplies. Among some entirely new items on display will be included the amazing DePuy F.R. 3 Defibrillator and a new closed wound suction apparatus.

102 **EATON LABORATORIES**
Div. of The Norwich Pharmacal Co., Norwich, N. Y.
A. E. Bower, H. J. Gallagher, E. H. Scheicher, D. M. Hillenbrand
Our Medical Service Representatives at the Eaton Booth welcome the opportunity to be of service to you. Complete information is available concerning the nitrofurans, The Eaton Medical Film Library, Student AMA Photo Salon and other special services to the profession.

35 **ENCYCLOPEDIA AMERICANA**
Grand Rapids, Mich.

Booth	Company and Products
25	**GEIGY PHARMACEUTICALS** **Yonkers, N. Y.** Geigy cordially invites members and guests of the Association to visit its exhibit. The exhibit features important new therapeutic developments in the management of inflammation, as well as current concepts in the control of hypertension and edema; depression; obesity, and other disorders, which may be discussed with physicians and representatives in attendance.
1	**J. E. HANGER, INC.** **Indianapolis** Prosthetics embodying the latest developments of research and custom designed to the individual patient's needs will be displayed at the Hanger's Prostheses booth. Your patients' requirements for either upper or lower extremity limbs can be discussed with any of the trained personnel in attendance—M. G. Manwaring or James M. Yount.
112	**H. J. HEINZ CO.** **Pittsburgh, Pa.** HEINZ BABY FOODS are now made by a revolutionary new process. Important results are: Superior Nutrition—Flavor—Color and Consistency. Taste some of these varieties at the Heinz Booth. Newest varieties are: Apple-Cherry Juice; Strained and Junior Vegetables and Dumplings with Beef and Bacon; Junior Meat Sticks; and Junior Apricots and Oatmeal. Literature available for office and for patients use.
20	**THE INDIANA NATIONAL BANK** **Indianapolis 9, Ind.** Harlan H. Hinkle, Merle H. Miller, Jr. The Indiana National Bank's booth will be staffed by trust officers competent to explain all phases of the Trust Department's Investment Services, Estate Management, Estate Planning and Real Estate Management Services.
31	**INDIANA STATE PODIATRY ASSOCIATION** Charles F. Ossenberg, D.S.C., Robert R. Williams, D.S.C.
11	**INDIANA SURGICAL, INC.** **Indianapolis 19, Indiana** Al Dowd and Jim Traub will endeavor to show some of the latest surgical items of interest to the attending Physicians. Please stop by.
19	**LEDERLE LABORATORIES** **Pearl River, N. Y.** Members of the Indiana State Medical Association and their guests will be most cordially welcomed at the Lederle booth, which is No. 19. Our medical representatives, who have access to the worldwide Lederle research organization, are prepared to furnish information regarding Lederle products and your related medical questions.
41	**ELI LILLY AND COMPANY** **Indianapolis** You are cordially invited to visit the Lilly exhibit located in space number 41. The Lilly sales people in attendance welcome your questions about Lilly products and recent therapeutic developments. The following Lilly personnel will be in attendance during the meeting: Mr. Harley Chastain, R. Ph. (in charge of exhibit), Mr. W. N. Burks, R. Ph.
105	**J. B. LIPPINCOTT COMPANY** **Philadelphia, Pa.** James Harvey Emerson, William G. Simpson. J. B. Lippincott Company presents, for your approval, a display of professional books and journals geared to the latest and most important trends in current medicine and surgery. These publications, written and edited by men active in clinical fields and teaching are a continuation of more than 100 years of traditionally significant publishing.
24	**P. LORILLARD COMPANY** **New York 17, N. Y.** H. G. Stern, R. M. Taube You are cordially invited to visit the P. Lorillard Exhibit. There, you will hear the story of Kent. We hope you will find it interesting and informative. Lorillard is proud of this story . . . and proud of Kent's promise that you treat your taste kindly with Kent. The reason, you will see, is that Kent with the MICRONITE filter refines away harsh flavor . . . refines away rough taste . . . for the kindest taste of all. As a remembrance of your visit, Lorillard will be pleased to give you a table cigarette box with your signature in gold, filled with either Kent or Newport cigarettes. Newport is the choice of menthol cigarette smokers—because only Newport adds a refreshing hint of mint combined with the soothing coolness of menthol. Please stop by and make your selection of this handsome souvenir. Thank you.
39	**MEAD JOHNSON & COMPANY** **Evansville 21, Ind.** The Mead Johnson Laboratories' exhibit has been arranged to give you the optimum in quick service and product information. To make your visit productive, specially trained representatives will be on duty to tell you about their products.
107	**MEDCO PRODUCTS CO., INC.** **Tulsa 12, Okla.** Presenting the MEDCO-SONLATOR. Providing a new concept in therapy by combining muscle stimulation and ultra sound simultaneously through a SINGLE Three-Way Sound Applicator. The MEDCO-SONLATOR is a distinct advance in the effectiveness of physical therapy in your office or hospital. A few minutes spent in our booth should prove of value to your practice.
48	**THE MEDICAL PROTECTIVE COMPANY** **Fort Wayne, Ind.** Kenneth W. Moeller, A. Russell Quilhot As the OLDEST NAME in professional liability protection, The Medical Protective Company continues to excel in providing complete coverage, proficient defense, and incomparable "know-how."
42	**MUTUAL MEDICAL INSURANCE, INC.** **(The Blue Shield Plan)** **Indianapolis** L. E. Converse, R. C. Kilborn, R. S. Saylor Mutual Medical Insurance, Inc. (Blue Shield Plan) will have its exhibit in Booth 42. Representatives of the Plan will be on hand at all times to answer questions and be helpful in any way possible. Special materials will be distributed explaining the operation of the Plan, the benefits it affords the physician and the public.
120	**ORGANON INC.,** **West Orange, N. J.** Robert Behrman You are cordially invited to visit our exhibit at booth #120. Of particular interest: Hexadrol® (dexamethasone) one of the newer, most highly

potent, well tolerated and economical corticosteroids and Durabolin®—a safe, potent, long-acting anabolic stimulant indicated in a broad range of clinical conditions where tissue building is desired. Our professional service representatives welcome the opportunity to answer your questions concerning Hexadrol, Durabolin or any of our other products. Best wishes for a most enjoyable visit to French Lick.

117 ORTHO PHARMACEUTICAL CORPORATION
Raritan, N. J.

Dale F. Schlusemeyer, David D. L. Johnson, Walter R. Phillips, Richard L. Johnston.
Welcome to booth No. 117 where a complete line of products for conception control is on display. Your questions concerning these and our other products will be welcomed.

37 PARKE, DAVIS & COMPANY
Detroit 32, Mich.

B. S. Pearce, M. O. Hollingsworth
Medical service members of our staff will be in attendance at our booth to discuss important Parke-Davis specialties which will be on display.

122 PEPSI-COLA BOTTLERS' ASSOCIATION
Louisville, Ky.

The Indiana Pepsi-Cola Bottlers' Association will dispense Pepsi to all attending the convention. You are cordially invited to visit Booth No. 122.

49 PFIZER LABORATORIES
New York 17, N. Y.

You are cordially invited to visit the Pfizer Laboratories' booth where our Professional Service Representatives will be pleased to discuss the latest topics of clinical interest.

45 PITMAN-MOORE COMPANY
Indianapolis

Sid Amy, Bill McCrory, Wally MacLellan, Charles Rongey, Paul LaHue
If you have patients with iron deficiency anemia, who have difficulty tolerating iron preparations, ask about Jefron, the medication your patients will take.—Pitman-Moore Company.

103 QUAKER CITY PHARMACAL COMPANY
Philadelphia 43, Pa.

Robert H. Lacy, Sr., D. James Wood
Visit us, Booth No. 103. Samples and literature available.
Quakerdex Time Caps., Anti-obesity; Quakedrin Tablets, Bronchodilator; Quakerdonal Tablets, Anti-spasmodic; Viro-Zyme, Posterior Nerve Root Therapy; Normotensin, Hypertension Control; Lipo-K W/Heparin, Circulatory Management.

2 REX BUSINESS MACHINES CO.
Indianapolis

Typewriters, Adding Machines, Dictating Machines, also on display for the first time will be an an 11 ounce personal recorder called the "Memocord." Curt Benner will be in charge of the Display.

12 A. H. ROBINS COMPANY, INC.
Richmond 20, Va.

Robert Starna, Robert Fortune.
Robins announces new SKELAXIN, an oral skeletal muscle relaxant for the initial treatment of acute sprains and strains. Early studies appear highly impressive. Ask about it at the Robins display.

44 ROCHE LABORATORIES
Nutley 10, N. J.

Ken Lorton, Ronald Roderick, Marvin Drew, John Hansen, Neal Smith.
Librium—a therapeutic agent for superior, faster, safer control of nervousness, anxiety, tension and other common emotional disturbances without the dulling effect or depressant action of the tranquilizers.

33 J. B. ROERIG AND COMPANY
New York 17, N. Y.

Victor Market, Les Nagley, Max Allen.
J. B. Roerig and Company will welcome members of the medical profession at the company's exhibit of leading specialties and new products. Representatives will be in attendance to answer any questions you may have. Roerig recently introduced a number of new products which representatives at the exhibit will describe and give information on the results of clinical reports.

121 ROSS LABORATORIES
Columbus 16, Ohio

Ross Laboratories, manufacturer of Similac, features SIMILAC WITH IRON, supplying 12 mg. of ferrous iron per quart of feeding at no additional cost. SIMILAC WITH IRON is designed for use when exogenous iron is indicated in infancy to support the usual diet, and to provide prophylaxis against iron depletion starting about the fourth month or 14 pounds. The newest booklet in the Ross Developmental Aids will be on display at the booth.

106 SANBORN COMPANY
Waltham, Mass.

The new SANBORN/FROMMER CELL COUNTER as well as new ELECTROCARDIOGRAPHS of advanced design and function together with the latest models of other instruments for diagnostic use, will be displayed and demonstrated at the Sanborn Company Booth No. 106.
Demonstrations and/or data will also be available on Sanborn instruments for biophysical research —single and multi-channel recording systems, monitoring oscilloscopes and physiological transducers.
Qualified Sanborn representatives will be pleased to answer questions and assist you with technical problems.

16 SANDOZ PHARMACEUTICALS
Hanover, N. J.

Sandoz Pharmaceuticals cordially invites you to visit our display at Booth No. 16, where we are featuring Mellaril, Cafergot P-B, Torecan and our brand new product, Sansert.
Any of our representatives in attendance will gladly answer questions about these and other Sandoz products.

Booth **Company and Products**

47 **W. B. SAUNDERS COMPANY**
Philadelphia, Pa.

Mr. Gerald Miller will again be on hand with the complete Saunders' line.
His wide variety of titles include helpful books for any sort of modern practice; books especially geared to today's Medicine.

10 **SCHERING CORPORATION**
Bloomfield, N. J.

Edward Leinhos, Robert Cunningham, Carl Sievert.
You are cordially invited to visit the Schering technical exhibit where the following products will be featured: Naqua, Celestone, Sigmagen, Delenar and Rela.

36 **CLAYTON L. SCROGGINS ASSOCIATES**
Cincinnati 19, Ohio

Clayton L. Scroggins.
This long-established firm is a charter member of the Society of Professional Business Consultants and provides medical practice management for doctors *only*.
Their confidential, objective, and reliable services are specifically designed to meet the needs of each individual doctor client. Their services include record systems, selecting and teaching personnel, auditing, servicing delinquent accounts (no commission), all tax preparation and investigations, partnerships, counsel re: fees, investments, insurance and estate planning.
They invite you to visit with them.

109 **SEALY MATTRESS COMPANY**
Louisville, Ky.

William A. Edie.
The comfort you prefer with the support you know you need—that is in brief the new Posturepedic series. Step in the Sealy booth and examine the Posturepedic combination. The heart of every Posturepedic is the amazing Durolife coil. Test it yourself . . . the only mattress designed with the cooperation of orthopedic surgeons.

29 **G. D. SEARLE & CO.**
Chicago, Ill.

V. D. Applegate.
You are cordially invited to visit the Searle booth where our representatives will be happy to answer any questions regarding Searle Products of Research.

100 **SEVEN-UP BOTTLING COMPANY, INC.**
Indianapolis 2, Ind.

Make our booth on the mezzanine your "Fresh Up with 7-Up" leisure time headquarters.

46 **SMITH KLINE & FRENCH LABORATORIES**
Philadelphia, Pa.

Our Representatives welcome the opportunity to discuss SK&F products with you and are always ready to be of help in any way they can. Products featured are:
1.) Daprisal®; 2.) Ornade®; 3.) Tuss-Ornade®; and 4.) Thorazine®.

7 **SMITH, MILLER & PATCH, INC.**
New York 10, N. Y.

Presents: LIPOTRIAD, a nutritional approach to therapy of certain vascular retinopathies, and an important factor in the control of lipid metabolism. VITRON-C, an oral hematinic, proven effective in treating iron deficiency even in patients with iron intolerance and gastrointestinal disease. VASOCON-A, an effective antihistamine, vasoconstrictor and decongestant for the rapid relief of conjunctival hyperemia and mild non-infectious ocular irritations.

Booth **Company and Products**

13 **E. R. SQUIBB & SONS**
New York 22, N. Y.

E. R. Squibb & Sons has long been a leader in development of new therapeutic agents for prevention and treatment of disease. The results of our diligent research are available to the Medical Profession in new products or improvements in products already marketed.
At both No. 13, we will be pleased to present up-to-date information on these advances for your consideration.

32 **STRIDE-RITE SHOES**
L. S. Ayres & Company, Indianapolis, Ind.

Miss Hazel Gee, Mrs. Pauline Waldron.
L. S. Ayres & Company proudly presents Stride-Rite shoes. . . . "The Shoe That Understands Children." *Each* foot carefully fitted by our highly-trained personnel. Orthopedic shoes sold by prescription only.

50 **THE STUART COMPANY**
Pasadena, Calif.

Robert J. Moon, John Nichol.
We invite you to visit the Stuart Company booth where specially trained representatives will be in attendance to answer your questions on new products developed in our modern laboratories.

104 **TRADE SHOW INSERTS**
Barrington, Illinois

101 **S. J. TUTAG & COMPANY**
Detroit 34, Mich.

Frank Duesterbeck, Shelby Crouch, Willard Fern, Roland Jordan.
S. J. TUTAG & COMPANY will exhibit their new product CYDRIL with TULOIDIN.
This is a combination of their well-known CYDRIL, an appetite depressant with a specially processed defatted pork thyroid—TULOIDIN.
Our representatives are looking forward to discussing this new product with you.

27 **U. S. VITAMIN & PHARMACEUTICAL CORPORATION**
New York 17, N. Y.

Charles Curry, John Porter.

9 **WARNER-CHILCOTT LABORATORIES**
Morris Plains, N. J.

W. E. Shannon, R. J. Fuller, R. E. Strakis.
Products to be featured:
Peritrate®—for the patient with coronary artery disease—with or without angina. Peritrate increases myocardial blood flow and oxygen supply safely—with no significant change in blood pressure, cardiac output or pulse rate.
Gelusil®—the physician's antacid—for lasting relief of pain and control of gastric acid by neutralization and adsorption. The unique dual gel formed by Gelusil protectively coats irritated and eroded mucosa. Gelusil is inherently nonconstipating—*contains no laxative.*

34 **THE WARREN-TEED PRODUCTS COMPANY**
Columbus 15, Ohio

John L. Cron, Herschel H. Lammey.
Warren-Teed representatives cordially welcome all registrants to visit their booth, No. 34.
MODANE®—A deconstipant for relief and rehabilitation of the atonic bowel.
KAON®—An extremely palatable oral potassium.

Booth	Company and Products
22	**WINTHROP LABORATORIES** **New York 18, N. Y.** Moody Cross, J. L. Jones, H. H. Farnsworth, H. K. Boyer Winthrop Laboratories cordially invites you to visit their booth at which we are planning to feature the following product: Winstrol, the new complete "physiotonic" for the underweight, the weak and debilitated. Builds body tissue, confidence and alertness. Winstrol is highly active orally, simple to administer and suitable for prolonged therapy in most cases.
15	**W. T. S. PHARMACEUTICALS** **Rochester 23, N. Y.** Kenneth Squires, Paul Zachow. DESENEX: The most widely prescribed fungicide. CALDESENE: Provides a lubricating film which is effective in the prevention or treatment of diaper rash and minor skin irritations.

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CHLOROMYCETIN®

(chloramphenicol, Parke-Davis)

That the urinary tract is especially vulnerable to invasion by gram-negative pathogens is an observation often confirmed. Also amply documented[1-5] is the finding that many common offenders in urinary tract infections remain susceptible to CHLOROMYCETIN.

In one investigator's experience, chloramphenicol has maintained a wide and effective activity range against infections of the urinary tract. "It is particularly useful against the Coliform group, certain Proteus species, the micrococci and the enterococci."[2] Other clinicians draw attention to the "frequency for the need" of CHLOROMYCETIN inasmuch as "...a high percentage of *Escherichia coli* and Klebsiella-Aerobacter are sensitive to it."[1] Moreover, enterococci, other streptococci, and most strains of staphylococci exhibit continuing sensitivity to CHLOROMYCETIN.[1]

Successful therapy in urinary tract infections is dependent upon accurate identification and susceptibility testing of the invading organism, as well as the prompt correction of obstruction or other underlying pathology.[6]

CHLOROMYCETIN (chloramphenicol, Parke-Davis) is available in various forms, including Kapseals® of 250 mg., in bottles of 16 and 100. See package insert for details of administration and dosage.

Warning: Serious and even fatal blood dyscrasias (aplastic anemia, hypoplastic anemia, thrombocytopenia, granulocytopenia) are known to occur after the administration of chloramphenicol. Blood dyscrasias have occurred after both short-term and prolonged therapy with this drug. Bearing in mind the possibility that such reactions may occur, chloramphenicol should be used only for serious infections caused by organisms which are susceptible to its antibacterial effects. Chloramphenicol should not be used when other less potentially dangerous agents will be effective, or in the treatment of trivial infections, such as colds, influenza, or viral infections of the throat, or as a prophylactic agent.

Precautions: It is essential that adequate blood studies be made during treatment with the drug. While blood studies may detect early peripheral blood changes, such as leukopenia or granulocytopenia, before they become irreversible, such studies cannot be relied upon to detect bone marrow depression prior to development of aplastic anemia.

References: (1) Katz, Y. J., & Bourdo, S. R.: *Pediat. Clin. North America* **8**:1259, 1961. (2) Malone, F. J., Jr.: *Mil. Med.* **125**:836, 1960. (3) Ullman, A.: *Delaware M. J.* **32**:97, 1960. (4) Petersdorf, R. G.; Hook, E. W.; Curtin, J. A., & Grossberg, S. E.: *Bull. Johns Hopkins Hosp.* **108**:48, 1961. (5) Whitaker, L.: *Canad. M. A. J.* **84**:1022, 1961. (6) Martin, W. J.; Nichols, D. R., & Cook, E. N.: *Proc. Staff Meet. Mayo Clin.* **34**:187, 1959.

PARKE-DAVIS

PARKE, DAVIS & COMPANY, Detroit 32, Michigan

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EDITORIAL AND ADVERTISING INFORMATION

All articles must be typewritten, double-spaced with margins of one inch.

Photographs should be printed on glossy paper. Negatives cannot be used.

Illustrations are desirable. Selection of illustrations submitted at discretion of editor and editorial board members. Cost of color illustrations must be shared by the author.

Contributors are responsible for all statements made in their articles. The editors and editorial board members may not be in agreement with all views expressed by authors, but it is desired to give all authors as great latitude as possible. However, the right is reserved to reduce in length or reject any article.

Articles are accepted for publication with the understanding that they are submitted for exclusive publication in THE JOURNAL of the Indiana State Medical Association.

Communications dealing with editorial matter should be sent to Frank B. Ramsey, M.D., Editor, 1802 North Illinois Street, Indianapolis 2, Indiana. All other communications should be sent to THE JOURNAL of the Indiana State Medical Association, 3935 N. Meridian, Indianapolis 8.

Advertising rates will be furnished on request. Copy must be received by the 5th of the month preceding month of issue. (Scientific manuscripts must be received at least two weeks earlier if geared for a specific issue.)

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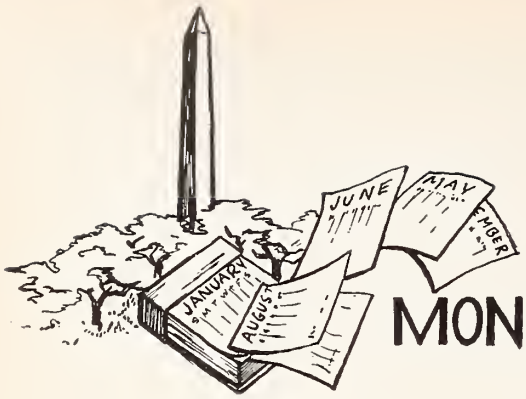
KENT'S development of the "Micronite" filter revolutionized the cigarette industry. Shortly after introduction of Kent with its famous filter, the swing to filter cigarettes got started in earnest. And no wonder. Kent with the new "Micronite" filter refines away harsh flavor, refines away rough taste, for the mildest taste of all.

Treat your taste kindly with KENT

The finer the filter, the milder the taste

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© 1962 P. LORILLARD CO.



This summary of what is happening in Washington is prepared by A.M.A.'s Capitol office and air-mailed to *The Journal* on the ninth of each month preceding month of issue.

MONTH IN WASHINGTON

WASHINGTON, D.C.—A special advisory committee reported to the Public Health Service that the occurrence of 12 cases of polio among persons who had taken 38 million doses of oral vaccine did not provide any ground for questioning the safety of the live-virus vaccine.

Reporting on the study by the advisory committee, Dr. Luther L. Terry, Surgeon General of the PHS, said:

"Following administration of more than 38 million doses of oral vaccine, only 12 cases, outside of the epidemic areas, including five from Oregon, have been reported which had their onset of illness within 30 days of vaccination.

"Although the number was very small in relation to the number given vaccine and the diagnosis in certain of these cases seems questionable, I decided to call together members of my advisory committee to examine in detail the diagnosis, laboratory studies, and epidemiological circumstances relating to each of the cases.

"The group met on two occasions, on Aug. 9 and 16, and after careful consideration of the facts, concluded that it was not possible to establish that the vaccine virus caused any of the cases. The advisers emphasized that polio viruses, as well as other viruses, are frequently present in the community and that it can be anticipated that occasionally poliomyelitis or illnesses simulating it may occur following vaccination programs. Illness and injury completely unrelated to polio and naturally occurring cases of polio have continued and, no doubt, will continue to be attributed to the vaccines. Furthermore, it is well known and recognized that any effective medication administered to millions of persons will cause or appear to cause a number of side effects.

"The committee, in summary, urged the continuation of present and projected programs of immunization looking toward the final elimination of the disease."

As of August 11, the approximate midpoint of the polio season, 274 cases of paralytic polio had been reported. The total, of which 129 cases were in Texas where outbreaks of type I had been occurring, was the same as for a comparable period last year.

LIFE EXPECTANCY UP AGAIN

Life expectancy at birth reached an estimated 70.2 years in the United States in 1961, according to the Public Health Service.

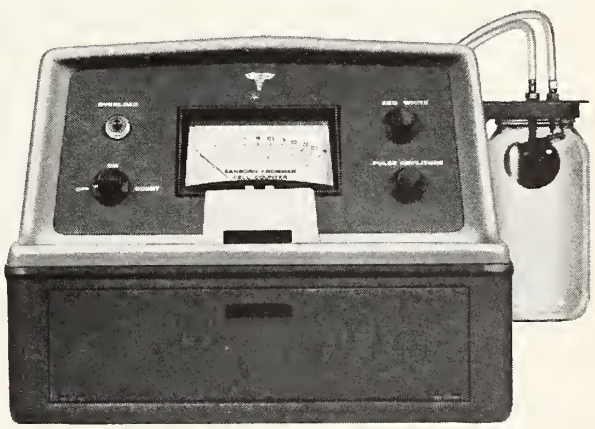
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Analyze it . . .

Anyone who has ever taken a manual blood cell count knows how tedious it can be. And of course tedium breeds errors. Now, the Sanborn-Frommer Cell Counter makes blood analysis extremely simple — pour the sample, press the lever and within 25 seconds you can read the cell count directly on the panel meter.

Accurate, fast counting of red and white cells is made possible by the unique optical-electronic design of this new, economically-priced Sanborn instrument. Approximately 50 times the usual number of cells are sampled, greatly reducing the statistical error.

Hematology is a relatively new field for Sanborn instrumentation, but we are serving it with the same skills that are applied in the manufacture of electrocardiographs: the 2-speed Model 100 Viso Cardiette . . . its mobile counterpart the Model 100M Mobile Viso . . . and the compact, fully portable, 18-pound Model 300 Visette. These and all other Sanborn clinical, research and monitoring instruments are designed to dependably provide needed information in its most usable form.



on a Sanborn® cell counter





SANBORN COMPANY
MEDICAL DIVISION *Waltham 54, Mass.*

INDIANAPOLIS *Resident Representative* 1635 North Gent Ave., Melrose 2-3768

Continued

The estimate was based on a 10% sample of death records received by the National Vital Statistics Division from all the 50 states.

Deaths totaled about 1,702,000 in 1961—a rate of 9.3 per 1,000 population, only slightly higher than the record low rate of 9.2 for 1954.

Five of 10 leading causes of death showed sharp rate declines as compared with last year. The declines were large enough to make it improbable that they were produced by normal fluctuations due to sampling. The five were vascular lesions; accidents; influenza and pneumonia, except of newborn; general arteriosclerosis, and diabetes mellitus.

The infant mortality rate of 25.3 per 1,000 live births set a record low, about two percent under the previous low of 25.7 recorded in 1960.

Recent statements that citizens of some foreign countries are healthier than Americans was disputed emphatically by the American Medical Association. The AMA statement was prompted by a paper presented at the recent annual meeting of the American Sociological Association in Washington. The paper said that the United States is not as "healthy" as Sweden and England.

"This is like trying to compare apples to oranges," F. J. L. Blasingame, M.D., the AMA's Executive Vice President, said.

"There have been accounts that comparisons of a nation's overall health can be made on the basis of life expectancy—that the people of Sweden and Britain are healthier because they live longer on the average than Americans.

"This proves nothing, for what you are actually comparing are differences in the makeup of populations. Both of these nations have small, stable, homogeneous populations, whereas that of the United States is a vast mixing from practically every conceivable corner of the globe, including all nationalities and races. . . .

"What you can prove statistically is that a person of Swedish descent in Minnesota lives longer than a Swede in Sweden, and that Mexicans apparently live longer in New Mexico than they do in Mexico . . . .

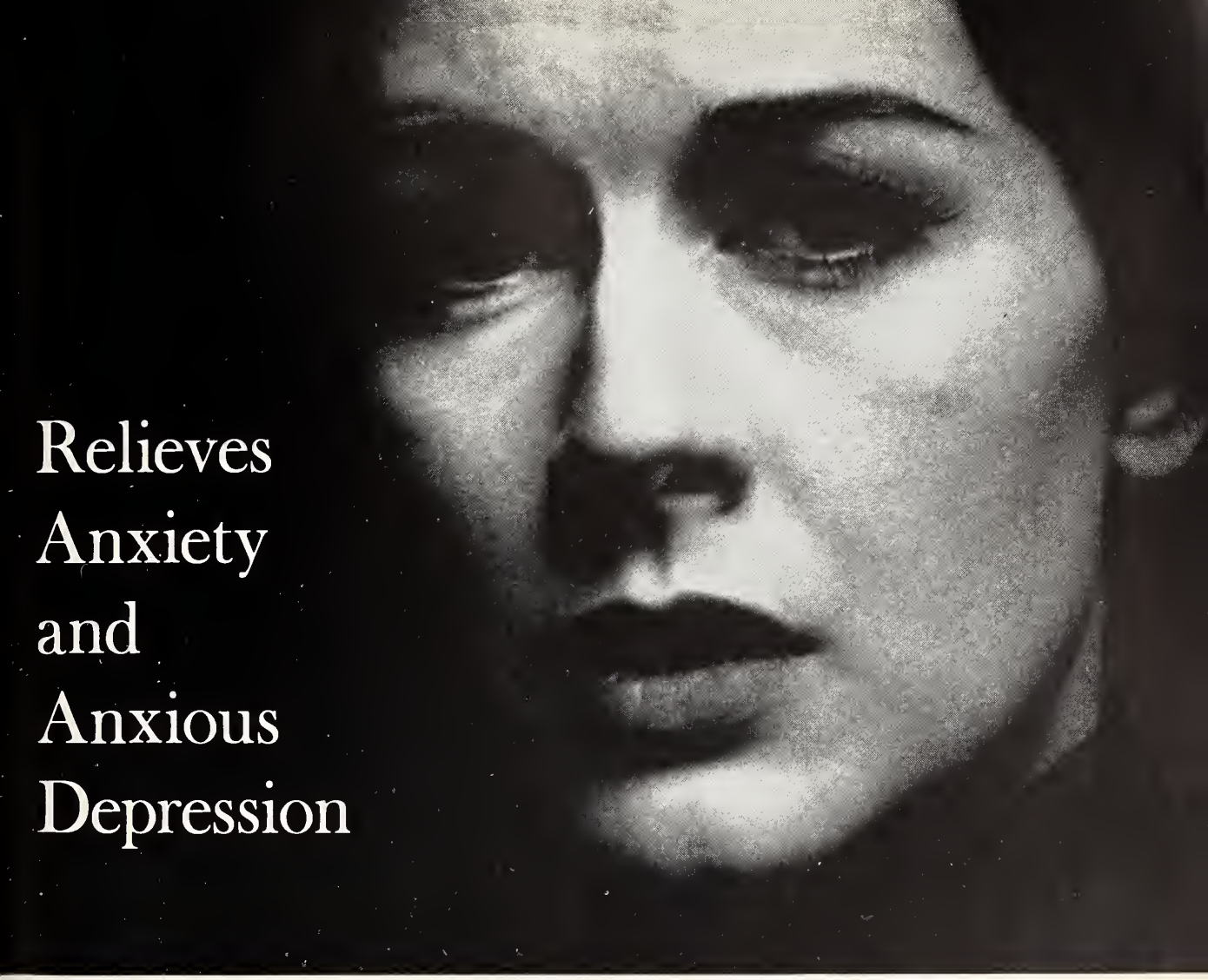
"The death rate from automobile accidents is much higher in the United States than in any European country because a larger percentage of the population own cars. This is a matter of economics and not medicine. Yet auto fatalities are a large factor in reducing this nation's life expectancy."

Dr. Blasingame also pointed out the economic aspect of Americans living at a faster pace, consuming more expensive, fatty foods and dying of heart attacks with much more frequency.

"Communicable diseases, on the other hand, are almost entirely a medical problem and the fact is that the death rate from communicable diseases in the United States is well below that of England or Sweden," he said.

International statistics on infant mortality rates are meaningless,

Continued



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Continued

Dr. Blasingame said, because of different definitions for what is a live birth or a still birth.

"As for insinuations that longer life span and lower infant mortality are somehow linked with the socialized medical practices of England and Sweden, there is absolutely no substantiation," he said. "The rate of increase in longevity in England is no different now than it was prior to the founding of the National Health Service there in 1947, and may actually have declined." ◄

From *The Journal* Fifty Years Ago

. . . In this world of manifold interests, occupations and proclivities, all are not presumed to be physicians, preachers, lawyers, mechanics, or what not. All, however, should be vitally interested in the individual—the status past, present and future—the mental and physical welfare of the individual units of society—and all have a right to learn from authoritative sources the facts concerning the subject. To king and peasant, to plutocrat and pauper, life, health and happiness are equally precious and equally desirable. There is no evidence available to prove that Nature designed or evolved mankind with certain capabilities and defects, and their incidental abnormalities for the sole delectation of even a learned medical profession.

Is it not possible that in the study of disease—in the study of function, either normal or perverted—our profession has forgotten that the individual involved is burning with desire to know the nature and pedigree of the unwelcome guest he harbors? While therefore it is true that humanity has been the beneficiary of the discoveries and studies in the field of medicine, the benefits to be derived might easily have been enhanced and more widely distributed by a voluntary explanation to the public of their nature and purport.

The ailing organism craves health, and the underfed or inquisitive mind craves information and food for thought. A profession therefore striving to the utmost of its energy to supply the first mentioned need should not be derelict in supplying the second equally important want. . . . William F. Howat, M.D., The President's Address delivered at the Annual Session of the ISMA, Oct. 10, 1912. *JISMA*, October, 1912.

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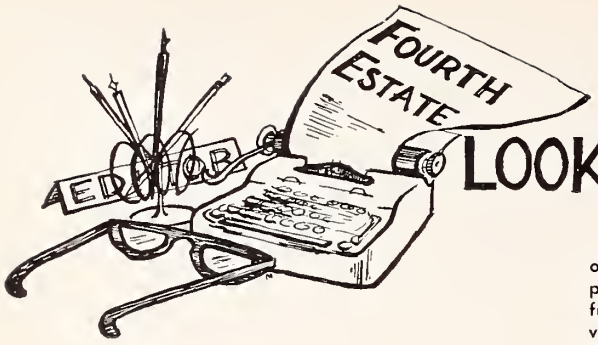
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LOOKS AT MEDICINE

This section of THE JOURNAL is devoted to the presentotion of opinions which oppeor on the editorial pages of the public press, and which ore of interest to the medical profession. Its function is to review comments which may be fovoroble or unfovoroble to medicine. Members ore invited to submit editoriol clippings for this column.

To Cut The Road Toll

The highway accident record provides Governor Welsh with ample reason for saying that the point penalty system for traffic law violations is not getting unsafe drivers off the road fast enough.

The point system aims at identifying repeat violators—who make up one group of accident-prone drivers—and getting them off the roads. This is a sensible objective. If the system is not working well enough it might well pay to toughen it to see if it would then work better.

At most, however, the point system can only bring about suspension or revocation of driver's licenses. That is far from 100% effective in getting the offending drivers off the roads. The reports of arrests of drivers after accidents, especially when intoxication is involved, all too often include the charge of driving without a valid license. Some tightening-up needs to be done there, too.

Maybe it is not practically possible by any system to get unsafe drivers off the roads fast enough. The effort to do it must continue, but there also is a need for some new and more effective way to make safer drivers of the ones that are on the roads.

Any reasonable point system operates by controlling the number of times a violator is given another chance—by the law.

Accident is pretty arbitrary about second chances. About one in 28 accidents is the last for at least one person involved.

Only a little more than one in a hundred fatal accidents is traced to some kind of mechanical failure. Drinking drivers are involved in about one out of five. The other four out of five are attributed to some sort of driver error, in most cases in violation of traffic regulations. Excessive speed is by far the most common single error. Most of the others are various forms of failure to give proper consideration to other traffic.

Grounding the careless and reckless driver, when exposed by repeated law violations, is necessary and important. But even more is to be gained if a way can be found to prevent drivers from becoming careless and reckless.

What's at stake is more than a thousand lives a year in Indiana. That's a high stake. It's worth a high effort.—*Indianapolis Star*, Sept. 11, 1962.

Fresh Turn on 'Medicare'

The positiveness with which President Kennedy last month predicted passage of the King-Anderson bill on hospital care for the aged looks slightly absurd now. Whereas the administration only a little earlier spurned any suggestion of compromise, Secretary Ribicoff has conferred at length with the House Committee on Ways and Means over possibilities of making it acceptable.

The only point on which the White House now insists, says the Health, Education, and Welfare administrator, is that financing of the new service shall be through the Social Security system and its payroll tax.

This leaves some room for maneuver. It would permit, for example, an amendment along the lines of the Lindsay or Rockefeller plan under which a person covered by Social Security could use its hospital care pay-

ments to cover premiums on a privately insured plan of his own choosing.

But any use of the Social Security system would have two important shortcomings. One is that a large number of persons over 65 still would have to be taken care of through the general assistance programs and the Kerr-Mills Act. Another is that many Social Security beneficiaries, just turning 65, would receive coverage far out of proportion to their relatively short-term contributions to the system.

On these grounds and others, pivotal members of the Ways and Means Committee evidently have decided that the Kerr-Mills Act, passed in 1960, deserves a fuller trial to see if it may by itself meet the need. Apparently, too, the congressmen have not found such a groundswell of popular support for "medicare" as the administration has tried hard to promote.

State legislatures should see to it that their states make use of the Kerr-Mills Act and cooperate with its provisions. With this done, it may be found that the King-Anderson bill is no more an irresistible "wave of the future" than was the Wagner-Murray-Dingell bill which for many years posed a broader threat of "socialized medicine."—*Wall Street Journal,* June 1, 1962. Reprinted from *The Christian Science Monitor.*

In Our Time

The politicians, those paragons of civic virtue, have unlimbered their throwing arms and are flinging mud at the medical profession faster than the Ben Caseys and the Jim Kildares can field it. The present cause of the smear campaign centers around medical care to the aged through Social Security.

The politicians, many of them faced with upcoming elections, are bound and determined to paint all doctors as greedy-fisted, money-mad ogres who, daily, kick old ladies out of their offices while running down old men in their custom-built Rolls Royces.

The heroes of this little two-penny drama are, quite naturally, those dedicated, altruistic, humanity-loving politicians, while the villains are those ignorant, unfeeling, heartless, stupid opportunistic doctors.

Unfortunately, the American Medical Association which is about as adept at public relations as a week-old medical student is at brain surgery, seems to have the knack of making the most inane statements, voiced by just about the most inarticulate spokesmen they can find. The politicians, on the other hand, after years of demagoguery, have no such handicap. They can verbally slice an opponent to pieces without benefit of scalpel or suture and smile the while.

The contest has never been an equal one. It has not even been a fair one. Lost in the din of battle is the fact that the United States maintains the highest level of medical coverage in the world and this includes all fields and all areas. That reputation and that accomplishment have been achieved, up until now, without the heavy-handed aid of soggy-minded bureaucrats who think that any problem can be solved, medical or social, by submitting all forms in quintuplicate.

The objections of the medical profession to medical care through Social Security have never been answered by the politicians. The pat political response is that the doctors fear that they are going to lose money. This is a lie. And, as a matter of fact, the doctors stand to make a small financial killing with the government footing the bills. At least now they will be guaranteed payment for treating patients whom, formerly, they treated for little or nothing.

More than this, the influx of hypochondriacs, malingerers, and those who just come for idle conversation, will rocket the cost of this federal handout sky-high. When people are paying their own way, they tend to overlook the seriousness of hangnails, bruised knees, scalp itch, athlete's foot and chapped lips. But let them discover that good old Uncle Sammy is footing the bill and they're going to descend on the medical practitioner like seven-year locusts.

It is in this area that physicians have lodged their strongest protests against any form of socialized medicine. They know full

well the temper and character of the majority of their patients. And they also know that there are not nearly enough doctors to play nursemaid to every neurotic individual looking for sympathy. And every minute, every hour which is wasted upon patients whose imaginary ills are being subsidized by the government will destroy the quality and the high caliber of medicine as it is practiced today.

The politicians have never answered this objection; obviously, because they are not equipped to answer it. They are politicians, not doctors. They are interested in the mass vote, not the quality of medical care. They are unaware of the problems because they have never experienced them.

Yet they claim that "charity" is humiliating to those who cannot pay for their medical care. Is it any more humiliating than waiting in line for endless hours for your number to be called at a Social Security office? Is it any more humiliating than being shuttled from desk to desk, from clerk to clerk, while plodding through the indifferent maze of the bureaucratic labyrinth? And why? Simply to get the money which, by rights, is yours anyway?

A long time ago some smart politician discovered that he could keep getting himself elected if he gave away enough money and if he created enough new job-holders who owed him allegiance. Since then, the ante has gone up and up. Certainly there are legitimate areas where the federal government alone can function.

But medicine is not one of them. Given assistance and an atmosphere in which it can operate effectively, there is no reason why the medical profession cannot solve its own problems, just as it has solved the overwhelming problems which faced it in the past.

All amateur witch doctors should keep their home remedies to themselves.—Editorial in *Il Popolo Italiano*, Philadelphia newspaper. (Reprinted from the Pennsylvania Medical Journal, July, 1962.)

Calm Down

Just about everyone in Washington, it seems, has suddenly decided the American public again needs protection—this time from drugs and pills.

President Kennedy wants tougher drug and food laws, Democratic Senator Kefauver wants tighter control on all drug manufacturing, Republican Senator Mundt says present laws have loopholes, Democrat Senator Humphrey is worried about the lack of communications between countries concerning the effects of drugs.

None of these gentlemen, with the exception of Senator Kefauver, was publicly worried about the problem until the recent reports of deformity of babies in Europe where mothers-to-be had taken a new sleeping drug Thalidomide.

This tragic side effect of what is described as otherwise a "perfect" sleeping pill shouldn't be the springboard for an attack upon American medicine, its manufacturers or its practitioners.

Reread the news stories and you'll find some significant facts which are a tribute not an indictment of American private medicine.

Not a single case of deformity has been reported as a result of private tests made in this country. The reason the drug was released privately in this country was to determine its effect on human beings. And there still is no conclusive medical evidence that Thalidomide and Thalidomide alone was responsible for the malformed babies born in Europe.

All of the great modern miracle drugs—Salk vaccine, penicillin, the myacins, insulin and a host of others—had to be tried by human beings before being released to the general public. This is the only way to insure the safety of a nation. Every drug manufacturer knows this and in many cases has more rigid testing safeguards than those required by government.

Government and private business together should do everything they can to prevent a Thalidomide episode in this country. But the way to do it doesn't involve a mass of hasty, restrictive legislation passed by a Congress which can't even agree on when or whether it should consider adjournment. —*Indianapolis Star*, August 3, 1962. ◄

The Journal of the INDIANA STATE MEDICAL ASSOCIATION

Supervised by THE COUNCIL

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Automobile Crash Injuries*

JOHN PAUL NORTH, M.D.†
Chicago

THE TOLL OF LIFE AND LIMB resulting from motor vehicle accidents is so appalling that it staggers the imagination and the statistics have no meaning for us. We go on driving with an optimistic belief that "it can't happen to us" until one of our own kin or a close friend is included in these statistics. It is particularly tragic that many of those killed are children or adults under 45 years of age who might have anticipated living for many useful years.

Many factors contribute to the high price we pay for the convenience of living dangerously on wheels. We blithely ignore many aids which might help to prevent this danger. We give only lip service to admonitions that speed increases the likelihood of serious injury, that drinking and driving do not mix and that universal contempt for existing traffic laws amounts to a national disgrace. Sometimes, if we are not in too much of a hurry, we conform but we protest that we cannot do much about the other fellow on the road.

I shall devote myself to one aspect of motor vehicle accident prevention in which I sincerely believe we, as individuals and specifically as surgeons, may exert a determining influence. In our daily encounters with the mangled victims of auto crashes, we can do a singularly effective job of public education on the value of features of automotive design which can be built into a car to increase passenger safety and especially on the value of safety belts.

World War II Gives Impetus to Safety Studies

Some pertinent lessons can be learned from what has been accomplished in aircraft. Prior to World War II, airplanes were built to fly but little thought had been given to protect the pilot when he crashed. In wartime, the trained, experienced pilot was a precious commodity. A study was undertaken to discover what might be done to improve the chances for a pilot to walk away from his crashed plane. Some clues to this were obtained from the packaging engineers, a group of experts who advise shippers of fragile products how to reduce breakage in transit. It was found that, without adding undesirable weight, the air frame could be strengthened to resist violent stresses in all its axes. Projecting control levers and knobs on instrument panels which would impale the pilot or his crew upon impact could be eliminated or modified.

* Read at the April 15, 1961 meeting of the Indiana Chapter of the American College of Surgeons.

† Director, American College of Surgeons.

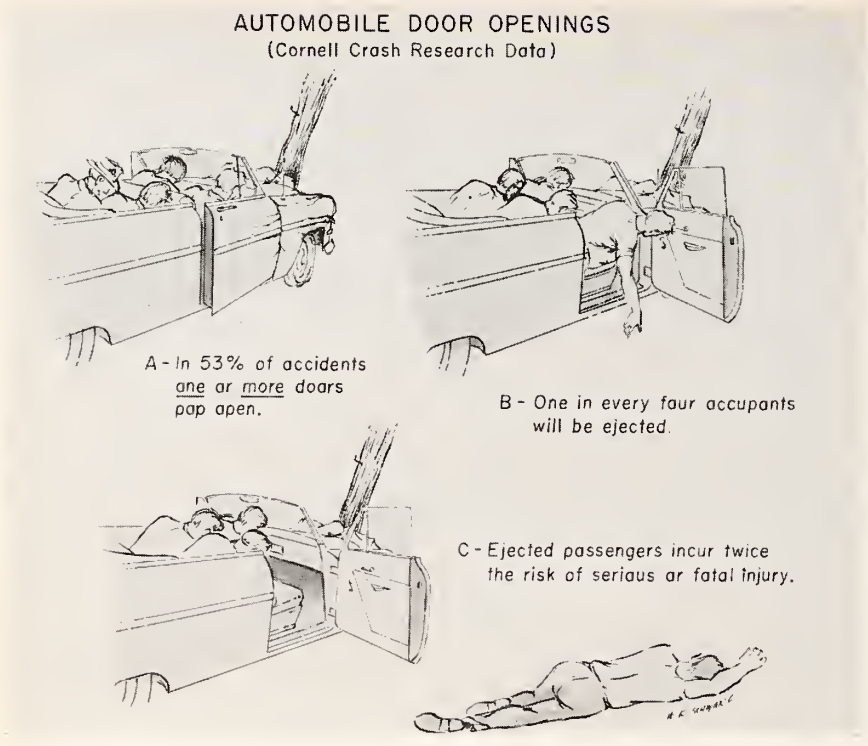


Figure 1
THE POPULAR BELIEF that one "escapes serious injury by being thrown clear" is untrue.

Most importantly, a restraining harness was devised to retain the plane occupants firmly in their seats if they should crash. These measures have had significant consequences in the salvaging of military flyers and many of the conclusions from this study have application to the automotive field where the forces involved are significantly less.

Some pertinent data have been accumulated by Dr. John Paul Stapp, of the USAF. His studies had to do primarily with the effects of abrupt deceleration upon parachutists and involved riding a rocket-propelled sled along a track laid on the desert at Alamogordo, New Mexico. His spectacular demonstrations, performed at speeds up to 360 miles per hour with an abrupt stop, indicated that the driver of an automobile, if adequately restrained by a harness, may drive his car into a stone wall at 45 miles per hour and escape uninjured. This maneuver is not recommended for the average motorist equipped with the conventional seat belt but it does show that relative degrees of protection can be afforded to the occupant of a motor car even in a head-on collision.

Ejection and Projection Main Hazard

For several years, a group at Cornell University Medical School, have been conducting a very illuminating study of the mechanisms involved in injuries to occupants of automobiles when involved in a crash. Their laboratory has been the public highways from which they have accumulated and tabulated data concerning actual highway accidents. A significant finding has been conclusive evidence that the driver or passenger who is ejected from the car is twice as likely to incur serious or fatal injury as the one who is fortunate enough to be restrained within the car (Figure 1). The wearer of a seat belt actually betters his chances of avoiding serious injury by approximately 60%.

The Cornell studies have also pinpointed the features of interior design which are the most likely to inflict injury upon the occupants. The chief hazard to the driver, of course, is impalement upon the steering column, this accounts for 29% of all injuries. For passengers, the main dangers lie in impact against the instrument panel, the windshield and its header or projecting

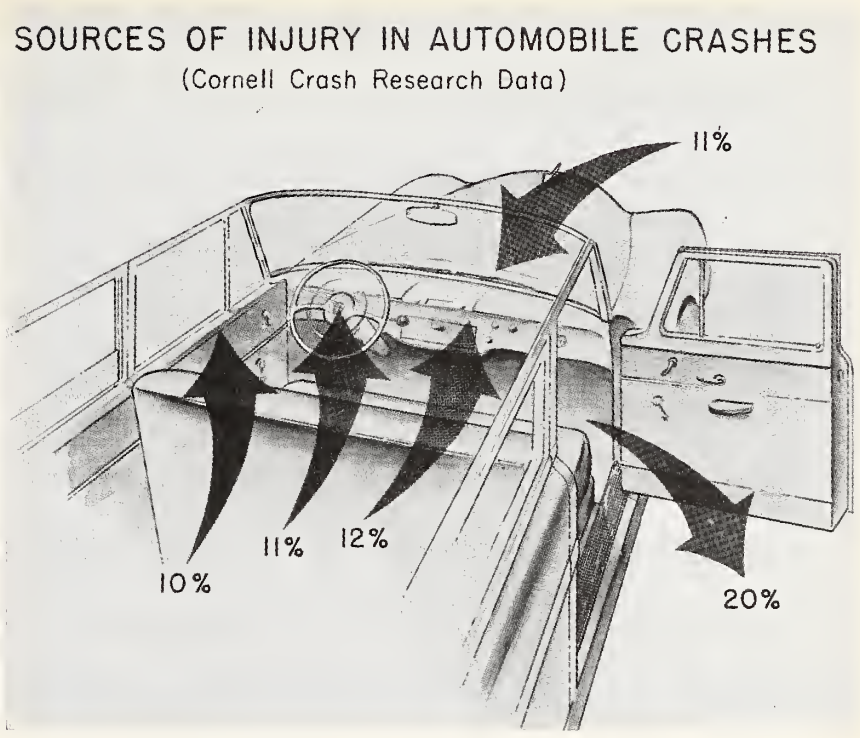


Figure 11
THE COMMON POINTS of impact which are productive of injuries in crash accidents.

door or window handles (Figure 2). Engineering skills are available to eliminate or at least to diminish materially the trauma traceable to most of these features. Steering columns can be redesigned for the protection of the driver. Parts which cannot be eliminated or streamlined may be surfaced with an impact-absorbing covering. There is a plastic material available far superior to the familiar foam rubber. Incredible as it seems, if a sheet of this material one inch in thickness is laid upon the ground, an egg may be dropped upon it from a second story window and it will bounce unbroken.

Public Apathy A Barrier to Safety

Why then is the family motor car not better equipped for the protection of its occupants? Before laying the full blame upon the automotive industry, let us acknowledge that they are in business to give the public the kind of car they demand at a price they will pay. Over the years the automobile manufacturers have introduced many features which have contributed greatly to the safety of occupants and which we now take for granted. Among these are strong car frames, reliable brakes, windshield wipers, powerful headlamps and tires which minimize blowouts and skids. In 1955 the Regents of the American College of Surgeons and its Committee on Trauma called upon the automotive manufacturers to introduce, as standard equipment, improved door locks which would prevent doors from springing open even under extreme conditions, energy absorbing padding at strategic points and seat belts. The following year one of the largest companies conducted an extensive promotional campaign stressing most of these safety features although seat belts were offered only as optional equipment at added cost. Car buyers evinced a remarkable indifference to all of this and continued to be more interested in increased horsepower, styling and ease of operation. The public accepted what was offered as standard equipment but was apathetic toward any safety features which might increase the sales price. Other automobile companies at the same time incorporated such things as improved door locks into their standard cars without fanfare but none laid any emphasis on seat belts.

We have recently seen the announcement

that all of the major automotive companies will build into their 1962 models the hardware necessary for the attachment of seat belts and will make belts available at an additional cost but much less than it has been in the past. This progressive step, urged by the College six years ago, has been taken under threat of legislation in several of our states which would have required the automobile industry to move even further in this direction. It is an indication that the automotive people will accede to public opinion when expressed through legislative bodies. There is good reason to believe that they might have yielded even sooner had there been any insistent demand from car purchasers that they be provided with some measure of built-in safety. How many people will avail themselves of seat belts in new cars and, still more important, how many will actually use them remains to be seen. Therein lies a challenge to us as surgeons to convince our patients of their inherent value.

Tell Your Patients

A firmly fastened seat belt by no means guarantees immunity from injury to its user when involved in an accident. The evidence, however, is incontrovertible that it will reduce the severity of impact. Above all, the prevention of ejection of the wearer from the automobile is in itself a strong argument in favor of seat belts. Surgeons should set an example and lose no opportunities to convince patients and neighbors of their value.

We have by no means approached the limits of building safety into the automobile. Competent engineers have developed structural features which would afford even greater protection—energy absorbing modifications of the steering column and the bumpers, seats which will not tear loose from their moorings on impact, etc. These require fundamental design changes and increased costs. An industry as fiercely competitive as the automotive one will not undertake this unless there is an insistent, unmistakable demand from the public. As surgeons, we are in a unique position to create such a demand. In our contacts with patients who have been involved in motor vehicle accidents, their families and friends, we are given a wonderful opportunity to convince people that existing safety features are valuable and that others may be developed if they will only manifest an interest in them when they select a new car. ◄

Contact Dermatoses in An Industrial Community*

M. MURRAY NIERMAN, M.D.†
Calumet City, Ill.

THE PROBLEM of contact dermatoses of industrial origin is certainly not a new one. As early as the sixteenth century, Paracelsus described skin changes caused by salt compounds in his classic *Morbis Metallicus*, and Agricola discussed deep ulcers seen among metal workers.[1] Since those early days, with the continuous expansion of industry and the advent of innumerable new chemicals, the problem has grown in proportion and has become far more complex. Fortunately, with modern diagnostic technics and some of the newer drugs, these dermatoses can be managed satisfactorily.

Contact dermatoses of industrial origin should be divided into three basic categories according to their primary cause: 1) those due to such contactants or allergens as chemicals, plant oils, grease, soaps and metals; 2) those due to non-allergenic irritants, such as caustic solutions, gases and fumes, and 3) those due to thermal or mechanical irritation, that may be induced by prolonged exposure to heat or use of certain types of equipment.

These conditions are often complicated by a superimposed dermatitis venenata due to topical medications, such as mercurials, antiseptics, antibiotics, nitrofurazone and local anesthetics, used initially by the plant infirmary or the patient himself. In addition, the dermatologist in private practice in an industrial community sees a considerable number of patients with dermatologic disorders which, although not caused by, are nevertheless aggravated by industrial allergens and irritants. These include acne, which is adversely affected by the oils and grease found in refineries, the heavy perspiration resulting from the intense heat and dust present in open-hearth steel mills, and is certainly not helped by a box-lunch diet; chronic eczemata, which are further irritated by the constant use of sensitizing soaps by individuals whose occupation requires frequent handwashing; and dermatitis of the hands, particularly in females, which is perpetuated and intensified by working with acid solutions. It can, in fact, be said that there are few dermatologic disorders which may not be aggravated by industrial contactants or, for that matter, by any allergen or irritant.

My practice is located in Calumet City, Illinois, a heavily industrialized area. We have large steel mills, such as U. S. Steel, Jones & Laughlin, Inland, Republic, Wisconsin and Youngstown; important oil refineries, including Sinclair, Standard, Socony and Phillips; soap and detergent manufacturers, such as Lever Brothers and American Maize, as well as lead and tin mills and numerous other plants representing virtually every branch of industry. Thus, I see industrial dermatoses in a large proportion of my patients.

Diagnostic Procedures

Subjects with an apparent industrial contact dermatitis should undergo exhaustive diagnostic study, so that disorders similar in gross appearance to contact dermatoses

* Part of this study was presented at the Third Inter-American Conference on Occupational Medicine and Toxicology, Miami, Fla., Aug. 6-10, 1961.

† Faculty, Dept. of Dermatology, Chicago Medical School, Chicago, Ill.

may be ruled out, and, if possible, the offending allergen or irritant identified. Identification of the contactants is of vital importance to determine whether the patient's condition is associated with his occupation, his home environment or his hobby, because removal of the allergen or irritant is the only means of achieving complete therapeutic success.

Since diagnosis in suspected cases of contact dermatitis must of necessity be established by a process of elimination, this must be a painstaking and tedious procedure. A detailed history should be obtained to rule out chronic or recurrent eczemata or other disorders capable of mimicking contact dermatoses. Thorough physical examination may offer preliminary clues as to whether one is dealing with an industrial contactant. It should be borne in mind that industrial dermatoses are generally limited to the face, the hands (particularly the dorsa) and forearms, and to the V of the neck; involvement of the neck area often results from transmission of the contactant by the hands.

By contrast, in psoriasis, for example, lesions are also often present in other areas of the body. The eyes and eyelids may also be used as a diagnostic guidepost in dermatoses affecting the face; edematous involvement of the eyes is the rule in contact dermatoses, while the opposite is true in eczemata and most non-allergic cutaneous disorders. Ocular conditions, such as conjunctivitis and blepharitis, are, of course, exceptions to this rule.

Positive Patch Tests Useful

Identification of the causative agent is rarely an easy task. Whenever possible, I ask the patient to bring samples of suspicious materials from his place of work for patch testing. In many cases, however, this is not possible due to the employer's inability or unwillingness to cooperate in this project; in other cases the patient is exposed to such a large number of potential allergens and irritants that the collection of samples of all of them is not feasible. In cases where samples are not obtainable, or when patch testing with them proves negative, I have recently begun to use a practical testing kit which contains a fairly wide variety of irritants commonly found in industrial settings and in medications used by infirmaries. This kit, which is available from Testkit Laboratories, of New York City, has proved quite helpful. As is well known, however, positive patch tests are very useful in establishing a differential diagnosis, while negative results are not dependable. It is not infrequent to see a patient with an acute reaction, after a negative patch test with the same material.

False negative results may be due to various factors, such as the difficulty of matching the concentration of the contactant present in the patient's environment and the period of exposure. The picture is further complicated by the fact that identification of one or even several contactants may be of little value if the patient is sensitive to a relatively large number of allergens.

Clinical Management

Treatment of all contact dermatoses, whether of industrial origin or not, is essentially the same. Complete avoidance of the allergen or irritant is, of course, the most important part of the therapeutic program. Until the causative agents or mechanisms are identified, the patient is instructed to avoid further contact with all possible allergens or irritants, both at work and at home. In eczematoid conditions, he is also told to avoid the use of soap and water, since many of these cases are due to strong soaps and kerosene employed to remove grease and oils from the body. Soap substitutes may be useful in such instances.

Acute lesions are treated with compresses of Burow's solution or boric acid, followed by application of topical corticosteroids, such as dichlorisone cream or methylprednisolone cream. If the patient complains of intense pruritus, methdilazine hydrochloride may be added to the regimen. In severe cases, a brief course of a systemic steroid should be given to suppress the acute reaction. I have found a regimen of betamethasone, using six 0.6 mg. tablets the first day, five the second, four the third, three the fourth, two the fifth, and one tablet for two to seven days, excellent for this purpose. In fact, this has become my regimen of

choice in acute contact dermatoses. Secondary infections are easily controlled with one of the tetracyclines. If the patient is first seen during the chronic stage, steroid ointments, with or without antibiotics, are employed.

These measures generally lead to complete subsidence of the condition under treatment. The patient is often able to return to his job and to tolerate the previously sensitizing contactant. If this is not the case, attempts are made to secure the patient's transfer to another area within the company. If a transfer is not feasible, protective devices, such as dermal gloves, may prove sufficient to prevent further outbreaks. In the relatively small number of cases in which all these measures fail, and the patient is unable to obtain employment in a setting free of the contactant, we are able to maintain the dermatitis under complete, or at least satisfactory, control with minimal dosages of one of the newer, potent steroids. It has been my recent experience that such cases may be managed with a regimen of one tablet of betamethasone daily or every other day. I concede that the prolonged administration of steroids, even at minimal dosage levels at which the side-effect potential is greatly reduced, is not an ideal solution, particularly from an academic viewpoint; however, depriving a millworker with five children, who is unable to find work in another industry, of his source of income, may be a considerably less ideal solution from the practical viewpoint.

The treatment of patients whose dermatologic conditions are aggravated by industrial contactants present a different problem. For example, the physician who attempts to keep acne in adolescents, working in mills during summer vacation, under control with such standard measures as keratolytics and other topical agents, is apt to lose the battle to highly acnegenic tars, grease and oil. The problem of actinic keratoses and melanoderma in construction and steel workers, who are continually exposed to sunlight and tar, can only be solved by switching them to inside work.

Comment

Contact dermatoses of industrial origin do not differ essentially in pathology, morbidity and symptomatology from those due to non-industrial allergens or irritants. Therefore, the management is similar for both types. The therapeutic measures designed to suppress and relieve acute symptomatology until the contactant can be identified and removed depend primarily on the severity of the reaction and not on its cause.

When the patient with an apparent contact dermatitis first comes to the infirmary, the use of topical medications containing sensitizing chemicals should be avoided, since these substances may cause a dermatitis venenata which, in turn, may render the patient sensitive to industrial materials which he was previously able to tolerate.

I have attempted to collect statistical data on the various types of industrial dermatoses. Unfortunately, this proved virtually impossible, since in many cases tests revealed the patient to be sensitive to materials present at his place of work as well as in his home. This is not surprising in this do-it-yourself age, when practically all industrial chemicals are also packaged for home use. In other cases, the causative agents could not be identified satisfactorily. A more controlled setting than a private dermatologic practice appears to be necessary to secure valid statistical data as to incidence and distribution of industrial contact dermatoses.

Summary

The diagnosis and treatment of industrial contact dermatoses are discussed, and some of the newer therapeutic modalities reviewed. The importance of removing the contactant is stressed, and alternative therapeutic programs are offered for use in patients for whom this is not feasible. Particular attention is given to industrial dermatoses seen in a midwestern area of the United States.

REFERENCE

1. Schwartz, L., Tulipan, L.: *A Textbook of Occupational Diseases of the Skin.* Philadelphia, Pa., Lea & Febiger, 1939. ◄

An Unusual Cause of
Cardiac Arrest During Anesthesia

Cardiac Rupture Following Electrocution

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SERIOUS INJURY may be sustained by the heart during electrocution. Evidence of cardiovascular damage may be present during the recovery period if the victim survives the initial phase of the accident. An awareness of this possible complication is essential in the management of these patients.

A case history is presented in this report, in which a patient who survived high voltage electrocution subsequently developed a spontaneous cardiac rupture during the administration of general anesthesia.

Report of a Case

A 14-year-old white male was admitted to Indiana University Medical Center on November 5, 1960. On October 8, 1960, he had climbed an electric utility pole and touched his right shoulder against a high voltage wire whilst grounding himself through the right groin: losing consciousness he fell about 30 feet to the ground. He sustained third degree burns of his back, right shoulder, lower abdomen, genitalia and thighs. Surprisingly there were no injuries as a result of the fall. Treatment at another hospital had consisted of multiple blood transfusions, debridement and dressing of the burns.

When he was admitted to this medical center, he had third degree burns of his right shoulder and his axilla, and the greater part of the posterior aspect of his thorax. There were, in addition, burns of equal severity involving his right thigh and lower abdomen. The posterior wall and the trigone of the bladder were exposed and his genitalia had been destroyed. His blood pressure was 110/80 mm.Hg., and pulse rate was 110 per minute and regular. There was no clinical evidence of enlargement of the heart; the heart sounds were normal and there were no murmurs. Roentgenographic and electrocardiographic studies were not obtained. His hemoglobin concentration was 10.3 Gms. per 100 ml., and his hematocrit was 31. Transfusion with 1000 ml. of blood elevated his hemoglobin concentration to 13.2 Gms. per 100 ml. and his hematocrit to 42.

On the day of admission, he submitted to general anesthesia—nitrous oxide oxygen and ether, so that the burns could be debrided and dressed. Five days later this procedure was repeated, but cyclopropane and oxygen were used to provide anesthesia. Both of these operations proceeded uneventfully, and the patient recovered satisfactorily.

Hemopericardium Discovered

On November 15, 1960, it was planned that a more extensive debridement of the burns on his back should be carried out. Since the patient would lie in the prone position during the operation, it was decided that endotracheal anesthesia would provide the most satisfactory method of management. As on previous occasions, he received morphine, 8 mgms. and scopolamine 0.3 mgm., by intramuscular injection an hour prior to his arrival in the operating room.

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When he arrived, he was wide awake and apprehensive. His blood pressure was 120/80 mm.Hg. and his pulse rate was 110 per minute. Anesthesia was induced with methohexital (Brevital),[1] 60 mgms. Following a period of hyperventilation with oxygen, succinyl choline, 60 mgms., was injected intravenously, and an endotracheal tube was introduced into the trachea without difficulty. The muscular fasciculations, in response to the succinyl choline, were very mild, and he did not strain or cough on the endotracheal tube.

The patient was ventilated with oxygen, but appeared cyanotic. Auscultation of the chest revealed normal breath sounds over both lung fields. His heart sounds were distant, and the anesthesiologist observed that his cardiac impulse, which had been readily visible, had disappeared. The heart sounds were absent now, but a carotid pulse was palpable at a rate of 100 per minute and arterial blood pressure was 80/60 mm.Hg. He remained cyanotic, and, as the situation was being evaluated, his carotid pulse became very weak and his blood pressure could not be obtained. An immediate thoracotomy was performed, and, as the thorax was entered, a large hemopericardium was discovered extending laterally into the axilla.

When the pericardium was incised, about 200 ml. of dark blood spurted out with some force. The heart, which appeared normal in size, was in standstill. The pericardial incision was extended, and an irregular rent was discovered in the wall of the right ventricle. The myocardial perforation was sutured rapidly, and the heart was massaged. Rapid transfusion of blood and the intravenous administration of metaraminol were commenced. After an adequate period of cardiac massage and repeated intracardiac injections of Adrenalin and calcium chloride, the heart would not resume spontaneous beat, and the attempt at resuscitation was abandoned.

A postmortem examination was not permitted.

Comment

When cardiac tamponade occurs during anesthesia, the interpretation of the early physical findings may be confusing if its presence is not suspected. This patient demonstrated the classical features of this syndrome. The heart sounds and the cardiac impulse diminished in their intensity until they disappeared, but a blood pressure and pulse could be obtained. This orderly sequence, however, may not be evident. Sudden and complete cardiovascular collapse may appear as the first indication of cardiac tamponade.

Treatment of this condition by the closed-chest method of cardiac resuscitation[2] will lead to undesirable delay if the underlying cause is rupture of the heart.

The only rational treatment is an immediate thoracotomy, a pericardiotomy and repair of the myocardial perforation. From our own experience, and that of others, it is known that it may be possible, by this approach, to salvage some of these patients. Lilly and his colleagues[3] have demonstrated that cardiovascular collapse can be provoked by relatively small amounts of blood within the pericardial cavity. One of our patients manifested complete cardiovascular collapse during anesthesia, due to cardiac tamponade resulting from a stab wound of the heart. An immediate pericardiotomy allowed a return of the pulse and blood pressure to normal almost immediately following the incision of the pericardium. The patient made a complete recovery.

Cardiac tamponade and cardiac rupture may occur during general anesthesia consequent to perforating injuries of the heart, to myocardial infarction associated with coronary artery disease, to cardiac catheterization studies, and to the progression of intrathoracic carcinomata into the chambers of the heart. It has not been possible to discover in the English-speaking literature a description of cardiac rupture following electrocution.

Spontaneous cardiac rupture must be distinguished from an occasional complication of an emergency thoracotomy for cardiac arrest—inadvertent incision of the heart. The distinction is usually well defined. In the latter case there is no pericardiomegaly. Only a small amount of blood will ooze from the cardiac wound if the heart is in standstill or if the ventricles are fibrillating, and

the incisions in the pericardium and myocardium are clean and overlie one another.

Body Fluid Main Current Conductor

When a person is electrocuted, the principle conductor of electricity through the body is the body fluid.[4] The current travels along the blood vessels, so it is not surprising that cardiovascular damage occurs. Klein,[5] who performed postmortem examinations on the remains of criminals who had been executed by electrocution, presented a vivid description of the damage to the heart.

> "The heart of an executed body is broken, looks like a lump; there is no atrium and the ventricles can be easily separated. The great arteries are all in a broken shape; there is no real rupture, but in many places perforation."

Immediate death may follow electrocution as the result of cardiac or respiratory arrest. A low voltage current causes ventricular fibrillation. When the voltage is high, there is respiratory arrest.[6] This may be due to tonic contraction of the respiratory muscles,[7] or injury to centers in the medulla by the electric current or by the asphyxia associated with the cardiac arrest. Artificial ventilation, alone, has salvaged many victims of electrocution. In these cases it must be assumed that respiratory arrest was the dangerous feature. The closed-chest method of cardiac resuscitation and mouth to airway artificial ventilation[8] are modern technics which appear to offer greater hope for the victims of accidental electrocution.

If the victim survives the acute phase of electrocution, signs of injury to the cardiovascular system may appear.[9] Cardiac arrhythmias—extrasystoles, tachycardias, auricular fibrillation or fibrillation-flutter, may ensue. There may be symptoms of angina pectoris or evidence of frank myocardial infarction. The cardiac valves may rupture. Circulatory insufficiency may follow damage to the peripheral arteries. Neurocirculatory asthenia is a common and not unexpected sequela. The emotional disturbance associated with this type of accident is frequently complicated by the problem of a compensation neurosis.

Scar Tissue Disrupted?

In the case which has been reported, it would appear that scar tissue in the ventricular wall ruptured during the induction of anesthesia. Since a postmortem examination was not permitted, it is difficult to determine whether the scar resulted from myocardial infarction due to coronary artery thrombosis or from direct injury to the myocardium by the electricity. It is difficult to accept that this catastrophe occurred coincidentally with the administration of a general anesthetic, even though he had survived other anesthetic procedures. His fatal anesthetic involved a complete change in technic. Endotracheal intubation was performed rapidly during apnea, following intravenous injections of an ultrashort-acting barbiturate and succinyl choline, and intermittent positive pressure breathing was applied to the airway. It has been reported that intermittent positive pressure breathing may enhance the cardiovascular collapse associated with cardiac tamponade, but appears unlikely that it would cause rupture of a myocardial scar. Endotracheal intubation, when carried out by this technic, is associated with a transient pressor response and an increase in the heart rate. DeVault and her colleagues[10] suggest that this is the result of a sympathicoadrenal discharge, since it is abolished by phentolamine. It would be reasonable to assume that this pressor response is associated with an increase of myocardial contractile force. It is suggested, in the case which has been reported, that there was an increase in the force of contraction of the heart during the endotracheal intubation which disrupted a scar in the wall of the ventricle and led to cardiac tamponade.

It is important that the possibility of serious injury to the cardiovascular system during electrocution be fully appreciated. A complete evaluation of the cardiovascular system is essential, so that adequate preparation and planning can be undertaken when surgery is contemplated for these patients.

Summary

A case, described in this report, illustrates that patients who survive electrocu-

tion may manifest evidence of severe cardiovascular injury. This patient developed spontaneous cardiac rupture during the administration of general anesthesia. It is suggested that victims who survive electrical injuries should undergo a thorough cardiac evaluation, so that adequate management of any cardiac complication can be undertaken.

BIBLIOGRAPHY

1. Taylor, C., Stoelting, V. K.: Methohexital Sodium—A New Ultrashort Acting Barbiturate, *Anesthesiology* 21:29-34 (Jan.-Feb. 1960).
2. Kouwenhoven, W. B., Jude, J. R., Knickerbocker, G. G.: Closed-chest Cardiac Massage, *J.A.M.A.* 173:1064-1067 (July) 1960.
3. Lilly, E. J., Macmillan, R. D., Dent, S. J., Stephen, C. R.: Iatrogenic Acute Cardiac Tamponade, *J.A.M.A.* 176:8-11 (April) 1961.
4. Langworthy, O. R., Kouwenhoven, W. B.: An Experimental Study of Abnormalities Produced in the Organism by Electricity, *J. Indust. Hyg.* XII:31-65 (Feb.) 1930.
5. Klein, S. R.: Capital Punishment in the Electric Chair, *N. Y. Med. J.* XCIX:1089-1090 (May) 1914.
6. Jaffe, R. H.: Electropathology—A Review of the Pathologic Changes Produced by Electric Currents, *Arch. Path.* 5:837-870 (May) 1928.
7. Jex—Blake, A. J.: The Goulstonian Lectures on Death by Electric Currents and by Lightning, *Brit. Med. J.* 1:492-498 (March) 1913.
8. Elam, J. O. and others: Head-Tilt Method of Oral Resuscitation, *J.A.M.A.* 172:812-815 (Feb.) 1960.
9. (a) Caccuri, S.: Les Altérations Cardio-Vasculaires par Électrocution (The Cardiovascular Changes Due to Electrocution), *Presse Medicale* 66:1502-1505 (Oct.) 1958. (b) Audier, M., Ruf, G.: Les Troubles Cardiovasculaires par Électrocution (The Cardiovascular Disorders Due to Electrocution), *Semaine des Hopitaux de Paris*, 32:666-671 (Feb.) 1956.
10. DeVault, M., Greifenstein, F. E., Harris, L. C. Jr.: Circulatory Responses to Endotracheal Intubation in Light General Anesthesia—The Effect of Atropine and Phentolamine, *Anesthesiology* 21:360-362 (July-August) 1969. ◄

About Our Cover

When you left home this morning to drive to your office you had your seat belt fastened . . . of course you did. But many of the patients who drove to your office today to keep appointments probably did not have their seat belts fastened—some patients even may have no belts fitted in their cars. You can help to convince your patients to have belts fitted and also impress upon them the necessity of making it a habit to *always* fasten these belts; a habit that should be as automatic as closing the car doors before starting the engine.

Many patients will tell you that they do wear belts . . . on the highway or on long trips . . . they may also tell you that belts are not necessary for local or about-town driving. They are wrong. Statistics prove that three out of four fatal accidents take place within 25 miles of the victims' homes!

Some patients may tell you that they don't fasten their seat belts for short trips because it is a bother—it takes time—it actually takes about two seconds to fasten a belt. These people who cannot spare two seconds of their valuable time are willing to gamble for their lives, and prepared to take the chance of wasting their time in a hospital bed recovering from injuries that, with a little foresight, could have been averted or greatly minimized.

It is true that the installation and habitual use of seat belts will not, of themselves, prevent accidents, nor will they create immunity from injury if and when that accident happens. But they may make the difference between life and death, the difference between minor and major injury . . . better a bruised knee than a fractured patella . . . better a stiff neck than a broken one.

This month's cover was made available to *The Journal* through the cooperation and courtesy of the Indiana State Police, Crash Injury Research Section, and the Hoosier Cadillac Company—M.E.R.

Prognosis for Females with a Pelvic Abscess

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THE PURPOSE OF THIS STUDY is to define the prognosis for patients with a pelvic abscess. For the purpose of this paper, "pelvic abscess" is considered an extravisceral abscess in the pelvis presenting initially or ultimately in the cul-de-sac of Douglas. Identifiable tubo-ovarian abscesses are excluded.

Current gynecologic textbooks give but brief, and usually incidental, attention to pelvic abscess, with no reference to prognosis. More thorough discussions of pelvic abscess are presented in earlier editions but with still almost no reference to prognosis. In reviewing the English literature of the last ten years on pelvic abscess, no papers devoted primarily to prognosis, and few with even particular attention to this aspect, were found.

All cases with a coded diagnosis of pelvic abscess admitted to Indiana University Medical Center (I.U.M.C.) or to Marion County General Hospital (M.C.G.H.) during the period 1950 through 1960 were reviewed. Eight patients at I.U.M.C. and 57 patients at M.C.G.H. met the above criteria.

Of these 65 patients, 44 were colored and 21 white. Their ages varied from eight to 88 years, but slightly more than 50% were between 26 and 35 years of age, and 75% between 16 and 45 years. All but one patient were treated with antibiotics. In addition 53 of the abscesses were drained surgically, 37 through the cul-de-sac, eight abdominally, and eight through both the abdomen and the cul-de-sac. The remaining 12 were treated medically, with seven of these spontaneously draining through the vagina.

Variations in Etiology and Treatment

Pelvic inflammatory disease was the most frequently reported etiology, as illustrated in Table I. Pelvic tuberculosis, carcinoma of the rectum with intraperitoneal perforation, cholecystitis, actinomycosis, and postpartum infection, each accounted for one case.

The number of hospital days prior to drainage of the abscess ranged from zero to 38, with an average of seven days; and post-drainage hospitalization averaged 12.5 days, with a range of zero to 67 days. The average total hospitalization was 19.3 days. Nothing was found in the literature of the last ten years to add to or detract from these figures. The wide variation in etiology and treatment of the abscess, as well as the wide range of days of hospitalization, makes prognosis in this area unreliable for the individual patient.

There were three deaths in this group of patients, for an uncorrected mortality rate of 4.6%. The first of these patients was a

ETIOLOGY	
	No. of Patients
Pelvic Inflammatory Disease	26
Appendicitis	11
Septic Abortion	6
Postoperative Infection	6
Diverticulitis	4
Radium Therapy	3
Others	5
Unknown	4
Total	65

TABLE I

* From the Department of Obstetrics and Gynecology, Indiana University Medical Center and Marion County General Hospital.

76-year-old female who was admitted for treatment of an incarcerated umbilical hernia. Laparotomy on the day of admission revealed additional findings of empyema of the gallbladder and pelvic abscess. The abscess was drained abdominally. Autopsy 38 days later revealed, in addition to the above, carcinoma of the pancreas. The second case was a 44-year-old woman who developed a pelvic abscess following radium application for carcinoma of the cervix. The abscess was drained abdominally, and the patient died during a subsequent admission three months later, with the clinical impression of metastatic carcinoma as cause of death. The third death occurred in a 19-year-old girl with a pelvic abscess secondary to criminal septic abortion, uterine perforation at time of a dilatation and curettage, and choriocarcinoma. She died 21 days after culpotomy and abdominal drainage of the pelvic abscess. Postmortem examination verified the above findings, and revealed a Clostridium perfringens septicemia.

The only reference to mortality in the literature was that of Claasens,[1] who in an analysis of 80 cases of pelvic abscesses, reported a mortality of 2.5%.

Readmissions and Surgery

Four patients were readmitted for pelvic abscess. The first of these was readmitted 13 months after treatment for a pelvic abscess secondary to pelvic inflammatory disease. Both abscesses were treated with antibiotics and culpotomy drainage.

The one patient with actinomycosis was readmitted 33 months later, and again in one month. One patient with an abscess following dilatation and curettage and conization of the cervix had repeat culpotomies one month and five months later, and then 20 months later had a unilateral salpingo-oophorectomy performed. The fourth patient originally had a pelvic abscess following culpotomy and wedge resection of both ovaries for Stein-Leventhal syndrome, and one month later was readmitted with gonorrheal salpingitis and pelvic abscess.

Twenty percent of the patients in this study are known to have had subsequent surgical procedures related to their pelvic abscess. In this group there were four hysterectomies and bilateral salpingo-oophorectomies, four culpotomies for pelvic abscess, three unilateral salpingo-oophorectomies, two bowel resections for diverticulitis, two appendectomies, and one incisional hernia repair. Claasens reported only two patients who "qualified" for "late surgery"; and Schreier,[3] et al., reported additional surgical treatment for 105 of 309 patients with either tubo-ovarian or pelvic abscess managed surgically.

Fertility Decreased

The 65 patients in this series had had a total of 91 pregnancies prior to their admissions for pelvic abscess. If those patients over 45 years of age, those who had received radiation therapy for cancer or who had had at some time, surgical sterilization, those who died, and those with no follow-up are not considered, there are left 34 patients with a total of 52 pregnancies prior to admission for pelvic abscess. Of these patients there is one recorded pregnancy and one reported pregnancy subsequent to pelvic abscess. A 17-year-old girl was treated with antibiotics and culpotomy for pelvic abscess due to pelvic inflammatory disease. Thirty-one months later she delivered a five pound twelve ounce living infant following an uncomplicated prenatal course. The other case was a 14-year-old female admitted with a pelvic abscess secondary to a perforated appendix. The abscess was treated with antibiotics and drainage. She subsequently reported that a "tubal pregnancy" had been treated without surgery in another hospital.

One patient had been seen with the specific complaint of infertility, but did not return for infertility studies.

Schreier and co-authors reported 168 patients who had pelvic abscesses treated with initial culpotomy. They stated that none of these patients subsequently became pregnant.

Forty-seven patients in this series have had recorded follow-up pelvic or rectal examinations, or subsequent surgical procedures allowing examination of the pelvic viscera. Of these 47, nine were reported to have a pelvic mass. The period of follow-up on these nine patients varied from one month to 38 months. Two patients had

carcinoma of pelvic organs, two originally had pelvic inflammatory disease, and in one each the abscess had been attributed to postoperative infection, pelvic tuberculosis, post-partum infection, septic abortion, and actinomycosis.

Collins and Tucker[2] reported eight patients with pelvic abscess treated with streptokinase and streptodornase and culpotomy drainage. Two of their patients, both representing postoperative infections, had pelvic masses, one at six weeks, and one at four months. Claasens reported, at three months, 12 normal dilatations and curettages; and seven hysterosalpingograms, six normal, and one showing a large residual hydrosalpinx.

Pelvic Pain

Pain was recorded as a complaint of 14 patients, seen from one to 77 months following their admission for pelvic abscess. One of these patients had carcinoma of the rectum, and one carcinoma of the cervix. One woman complained only of menstrual cramps, two of only occasional pain with lifting or long standing, and in only one patient was the pain considered sufficient to warrant further surgery. Pelvic masses were noted in five of these patients. In addition to the two with carcinoma, the reported etiology of the abscess in the 14 women with postoperative pain was pelvic inflammatory disease in five patients, and septic abortion, pelvic tuberculosis, appendicitis, postoperative infection, post-partum infection, actinomycosis, and unknown in the case of one patient each.

Subsequent abnormal bleeding or amenorrhea was recorded for five patients. Two complained of irregular bleeding, one patient 34 months after treatment for pelvic abscess due to actinomycosis, and one patient 14 months after pelvic abscess due to pelvic inflammatory disease. Irregular, heavy menses were reported by one patient seen as a venereal disease contact 11 months after treatment for pelvic abscess attributed to pelvic inflammatory disease. One patient had been admitted with a pelvic abscess, cause unknown, three years after she had had a total hysterectomy and unilateral salpingo-oophorectomy. She was seen five years later with reported vaginal bleeding. No evidence of bleeding was found. The last patient in this group was treated for pelvic abscess following culpotomy and wedge resection of the ovaries for Stein-Leventhal syndrome, and has been followed for 28 months with alternating periods of amenorrhea and irregular menses.

PROGNOSIS

Criteria	No. of Patients	Percent of Total Patients
Subsequent Pain	14	21.5
Additional Surgical Procedures	13	20
Subsequent Pelvic Mass	9	13.8
Abnormal Menstruation	5	7.6
Readmission for Pelvic Abscess	4	6.1
Deaths	3	4.1
Known Pregnancies	1	1.3

TABLE II

The only reference found in the literature of the past ten years relating to either pelvic pain or disturbances in uterine bleeding following pelvic abscess was the inference which might be drawn from Claasen's indication for late surgery in two patients: "those with continued ill health, constant misery with pain or menorrhagia, inability to work or to perform home duties adequately or to enjoy life."

Summary and Conclusions

Sixty-five patients with pelvic abscess, admitted from 1950 through 1960 are reviewed, along with the literature of the same period, in an attempt to define the prognosis for patients with pelvic abscess.

In this series, the average total days of hospitalization was 19.3, and the uncorrected mortality rate 4.6%. Four patients were readmitted for pelvic abscess. Twenty percent of the patients are known to have had subsequent surgical procedures related to their pelvic abscesses. One patient is known to have delivered a living infant, and one reported having had a tubal pregnancy since treatment for pelvic abscess. Nine patients are known to have had pelvic masses, 14 had pain, and five subsequent abnormal bleeding or amenorrhea.

It would appear that the outlook for any

given patient depends more on the etiology of her pelvic abscess than on the existence of the abscess itself. Despite the use of antibiotics fertility is markedly diminished and there remains a high incidence of subsequent surgical procedures.

BIBLIOGRAPHY

1. Claasens, H. J. H.: Pelvic Abscess in Gynaecologic Practice, A Clinical Analysis of Eighty Consecutive Cases, *So. Afr. Med. J.*, 32:1171-1175, 1958.
2. Collins, C. G., Tucker, G. W.: The Use of Streptokinase and Streptodornase in Pelvic Abscesses; Preliminary Report, *New Orleans Med. J.*, 104:385-389, 1952.
3. Schreier, P. C., Adams, J. Q., Everett, B. E.: Optimum Time for Surgery in Pelvic Inflammatory Disease, *Southern Med. J.*, 50:1473-1477, 1957. ◄

A Matter of Life and Death

A Texas Highway Patrol car, moving at very high speed to head off fleeing fugitives recently, slammed into two utility poles after running through a ditch to avoid hitting a motorist at a blind intersection. The two patrolmen, packaged into the patrol car with safety belts, said: "We got just as close to Heaven as the seat belts would let us." The patrol car was demolished; the patrolmen were unscratched.

* * * * *

In Central Texas, a pickup truck occupied by a man and his wife was struck by a fast-moving train. The truck was shoved a quarter-mile down the tracks, impaled on the front of the engine, but did not overturn. The man and his wife fell out of the sprung doors and were killed. When it was over, the cab and seat were intact. Investigators said seat belts would have save both of them.—Reprinted from the *Texas State Journal of Medicine*, Sept. 1962.

Clinico-Pathological Conference

CUMBERLAND HOSPITAL
BROOKLYN 5, N.Y.
Friday May 19, 1961

Dr. S. Bailey, Moderator:

Both the cases being presented were studied by autopsy on the same day. Because they happen to bear on the same rather striking condition, a joint offering is being made.

Dr. Arnold Lieberman:

Case #1 is that of a 38-year-old colored male. He was married, had no children, and worked as a laborer. Apparently, he had good health all his life until the day before admission when he awakened with a dull headache; this was relieved later by pills prescribed by a physician. Despite the episode, he worked that day, ate a heavy dinner and retired early. The next morning, while dressing for work, he complained to his wife that, "The pain is coming back but fast." Within seconds, he was prone on his face, comatose.

On admission to Cumberland Hospital, 40 minutes later, he was noted to be in profound shock, blood pressure 60/0, the pupils were dilated, the heart very rapid, cardiac sounds faint but regular; respirations stertorous and rapid. The spinal fluid yielded almost pure blood under great pressure.

Intravenous Levophed was started in 5% glucose solution. When respirations ceased suddenly, the anesthesiologist quickly instituted intratracheal intubation with positive pressure. With rapid digitalization and continuing Levophed, the blood pressure was restored to normal levels; the heart beat was regular at about 100 per minute. An E.K.G. taken about two hours before death was read as indicating diffuse myocardial ischemia but vital signs were maintained for a 17 hour hospital stay; at that time, irreversible cardiac arrest occurred.

Case #2 is that of a 68-year-old white married woman, who three years previously had had a radical mastectomy for a malignancy with axillary node involvement. Two years postoperatively she returned to the hospital complaining of intermittent, worsening headaches. Neurosurgery for the presumed tumor was offered but refused.

Her final admission to the Cumberland Hospital was on 11/8/60. At this time, the mastectomy scar, a clear chest and normal heart were noted. Left hemiparesis was present; the aortic knob had a calcific plaque; the E.K.G. recorded changes of diffuse anterior wall anoxia. The urine contained fine granular casts; white blood count was 13,000. She developed urinary and fecal incontinence and had transient, recurrent episodes of deep coma, each lasting several days. Two spinal punctures yielded normal fluid in all respects. In April, 1961, the clinical picture began to deteriorate rapidly, bed sores developed, tubal feedings became necessary and she became unresponsive to stimulation. On 5/2/61 she went into shock and expired later that day.

Dr. Sidney Dann:

I want to thank Dr. Bailey for the broad hint that the two cases being presented

Editor's Note
The use of color photographs in this article was made possible through the generosity of Geigy Pharmaceuticals Inc.

have a common diagnosis: The brain is obviously involved in both instances.

The case of the 38-year-old man appears to be one typical of intracranial hemorrhage. The pathology should be found some place in the Circle of Willis, the most likely lesion being a congenital aneurysm. A slow leak caused the initial headache while the catastrophic blow-out killed him. Surgical intervention prior to the final event might have been of help.

Certainly, the second case presents a far more complex problem. The clinical neurological findings could all be explained on the basis of a metastasis from the mammary malignancy. However, the possibility of a cerebrovascular disorder should not be excluded. The pattern of remissions could be explained by an aneurysm alternately expanding then clotting and contracting.

Space occupying lesions may also be due to carotid artery occlusion and subdural hematoma.

Carotid artery occlusion is an important clinical entity that has been attracting increasing attention within recent years. Clinical and more careful autopsy studies are turning up more and more such cases. However, though this 68-year-old woman does not present a typical picture, such a diagnosis must be high on our list.

Subdural hematoma is another entity too frequently omitted from differential diagnoses. Especially in the aged, we may get the intermittent picture described for us here. A trifling trauma may initiate the process or it may arise spontaneously. This lesion is amenable to surgery, and it should be considered whenever any neurological problem presents itself.

Summarizing this second case, I am tempted to diagnosis a cerebral aneurysm with a slow leak but I will place carotid artery occlusion and subdural hematoma as my first two possibilities.

Dr. M. F. Wiener. Pathologist:

The essential findings will be illustrated by selected photographs.

Autopsy, Case #1: Base of skull and brain: A ruptured aneurysm of the right internal carotid artery was present where the artery traverses the dura and becomes the anterior cerebral artery (Figure 1). The widely gaping, thin-walled, cup-shaped remnant of a freshly ruptured aneurysm was found only after removal of the brain and careful inspection of the floor of the cranial fossae. The massive subarachnoid hemorrhage with secondary perforation into the subjacent cortex and ventricular system was, at first, thought to be the conventional lenticulostriate type of cerebral apoplexy. However, meticulous washing away of the free blood revealed clearly the otherwise obscured and nearly overlooked aneurysm. The dehiscence of the muscular coat is shown microscopically in Figure 2; in addition, the organizing thrombus within the lumen is seen clearly.

Chief Anatomic Diagnoses:

1. Ruptured congenital aneurysm of anterior cerebral artery with massive subarachnoid and subdural hemorrhages.
2. Congenital cysts of liver and kidneys, minimal.
3. Stag-horn calculus of right kidney with severe pyelonephritis; compensatory hypertrophy of the left kidney.

Comment: Recent myocardial infarction and pulmonary thromboembolism were interpreted as terminal phenomena secondary to the excessive anoxia and prolonged positive pressure artificial respiration.

Autopsy, Case #2: Figure 3 shows a saccular aneurysm 4 cm. x 3.5 cm. of the right posterior cerebral artery 2.5 cm. from its origin in the basilar artery. The external surface of this aneurysm is smooth, the wall 0.8 to 2.0 mm. thick and the lumen occluded by a firm, dark, mottled clot (Figure 4). The subjacent cerebral peduncle shows a saucer-shaped depression (Figure 5) corresponding to the pressure exerted by the aneurysm locally. The arteries of the Circle of Willis showed, microscopically, diffuse areas of fibrosis with calcification (Figure 6).

Chief Anatomic Diagnoses:

1. Aneurysm of the right posterior cerebral artery with compression of the cerebral peduncle.
2. Decubitus ulcers; iliac vein thrombosis; pulmonary embolization.



Fig. 1

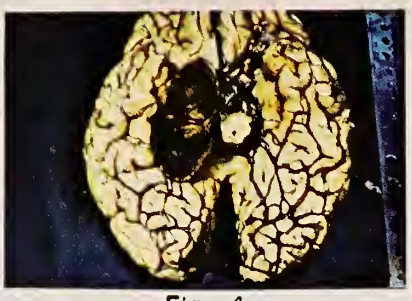


Fig. 4

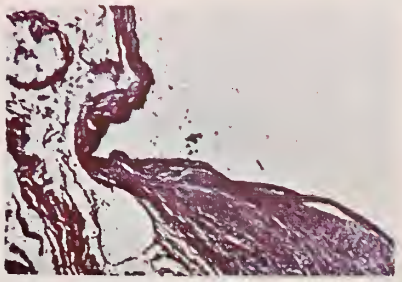


Fig. 2



Fig. 5



Fig. 3

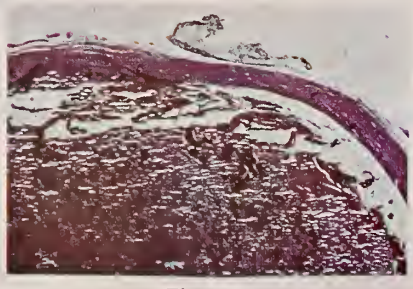


Fig. 6

FIGURE 1

Ruptured aneurysm of right internal carotid artery.

FIGURE 2

Dehiscence of muscularis (x40).

FIGURE 3

Saccular aneurysm of right posterior cerebral artery, 4cm. x 3.5cm.

FIGURE 4

Hemisected aneurysm: lumen filled with organized thrombus.

FIGURE 5

Compression of subjacent peduncle by aneurysmal mass.

FIGURE 6

Wall of aneurysm showing fibrosis and old thrombus in lumen (x40).

3. Cardiac hypertrophy and dilatation; general arteriosclerosis; visceral passive congestion.

Comment: It should be recalled that aneurysms of the Circle of Willis are, at times, associated with other anomalies: particularly, polycystic kidneys and coarctation of the aorta.[1,2,3,4] The findings of minimal congenital cysts of the kidneys and liver in the first case are more than academic. This case may be added properly to the growing list of documented berry aneurysms associated with other anomalies.

M. Spring and S. W. Gross[1] report a case of a 42-year-old woman who had a cerebral aneurysm extirpated surgically; she survived in good health, succumbing five years later to uremia caused by polycystic kidneys. E. F. Pontasse et al.[2] report three cases of this type plus 47 culled from the literature. N. Bigelow[3] reviewed the literature: 304 autopsy-proven cases of coarctation also had associated cerebral berry aneurysms. N. H. Bigelow[4] also raises the question as to whether the aneurysms are present from birth or whether they develop later as a consequence of congenital wall defects, arteriosclerotic plaques or syphilitic mesarteritis.

Dr. S. Bailey:

We all want to thank Dr. Wiener for this perceptive demonstration of two such interesting cases. Does Dr. Dann wish to make any additional remarks?

Dr. S. Dann:

This is proving to be a most instructive morning. Presenting themselves on the

same day, these cases point up a remarkably "wide clinical spectrum" of the problem of intracranial aneurysms. The implicit lesson is that the "typical" case is not necessarily the "usual" one. We must plead for really careful studies of all "routine" stroke cases. Many patients may then very well be salvaged from the custodial corners of the wards.

In the second case, one cannot be too chagrined at not having made the exact diagnosis. The clinical picture demanded a differential discussion of aneurysm, carotid artery occlusion, subdural hematoma and a slowly growing neoplasm. It is basic to remember the possibilities and thus be able to take the proper diagnostic steps. Atherosclerosis is not the only lesion in the elderly patient developing intracranial pathology. Unfortunately, too many treatable lesions are classified, mistakenly, under that comforting (?) diagnosis of "stroke."

Dr. P. DeVito:

In discussing the treatment of cerebral aneurysm diagnosed during life, is it not important to remember that ligation of the internal carotid artery can, by itself, induce hemiplegia and worse? Many of us have seen cases of transient stroke associated with a fibrillating heart. The emboli cause vascular spasm and local edema which subside with conservative management. Therefore, is it not valid therapy to treat selected cases expectantly?

Dr. S. Bailey:

It is true that we can overemphasize the newer developments. The technics of controlled hypothermia and hypotension are not simple procedures; resort to them is not needed too often. In our daily practice, it *is* necessary to be alert in diagnosing *incipient* strokes. A recent issue of *Medical News*[5] quotes Dr. Jack Whisnant, of the Mayo Clinic, reporting a series of 25 patients in whom internal carotid artery thromboendarterectomies were performed; the results appeared to be most encouraging.

Dr. Arnold Lieberman:

Dr. Bailey has assigned to me the task of summation; I find myself with but little to add. Dr. Dann is quite right in his brilliant analysis of the second case; it had been our good fortune to have made the correct diagnosis while the patient was still on the ward.

The able discussion we were privileged to hear this morning emphasizes the emerging fact that we are still too wary of doing routine angiograms in all cases diagnosed as stroke. Dr. J. L. Pool of the Neurological Institute of the Presbyterian Hospital, N. Y.[6] asserts unequivocally that in his experience "there is *never* any counterindication to bilateral angiography." Dr. Robert Kuhn,[7, 20] also of New York, from his experience at the N. Y. Medical College, endorses this viewpoint unreservedly. If it becomes evident that internal carotid artery obstructions are the responsible agent in the majority of strokes, surgery would become both curative and preventative.*

Bassett and Gass[8] did well with extirpation of aneurysms. Of their 17 cases, only three required craniotomy; the others did well with internal carotid ligations only. Williams[9] studied all Mayo Clinic necropsy material between 1924 and 1950. He concluded that 89% of all aneurysms associated with the Circle of Willis arose from the internal carotid artery. This fact should encourage both the clinician and the neurosurgeon. Bloor et al.[10] have measured directly the pressures in the Circle of Willis both before and after internal carotid artery ligation. Also, Gass et al.[11] have obtained encouraging results by intracranial extirpation of middle cerebral aneurysms.

Dr. DeVito is unquestionably correct in cautioning against precipitate surgical enthusiasm. The detailed anatomy of the vascular supply of the brain (knowledge of which is so essential in operative treat-

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* Since this conference, excellent additional articles have appeared in the literature.[15, 16, 17, 18, 19, 20, 21]

In the eight months following this conference, the medical service at the Cumberland Hospital has had 176 deaths with 110 autopsies; five additional cases of berry aneurysm were found, one of them multiple. Two other cases, diagnosed clinically, died but were not autopsied.

In addition, two individuals survived to be transferred for definitive therapy following confirmatory angiography.

ment) is supplied in a recent review.[12] It is pertinent to our discussion here to call your attention to the last issue of the *J.A.M.A.*[13] The first page of the obituaries recounts three deaths ascribed to cerebral hemorrhage: two specifically as ruptured cerebral aneurysms! Recently, Dr. Paul White remarked that—50 years ago—when he was an intern, on his service only three cases were diagnosed as coronary heart disease. Today, the same ward, in the same length of time, has made the diagnosis over 1400 times! I cannot help but wonder whether, 50 years from now, someone will not be in a position to make a similar comment about "strokes" and cerebral aneurysms.

Apropos the increasing recognition of cerebral arterial occlusions and the dramatic relief offered by prompt thromboendarterectomies, I might offer the case of a 76-year-old surgeon I met just the other day. He diagnosed the condition in himself merely because he had had occasion to read on the entity.[14] Dr. Jesse E. Thompson of Baylor University operated on this surgeon-patient the very same day. My 76-year-old friend is back working every day; he tells me that Dr. Thompson has a series of well over 100 similar cases.

Dr. S. Bailey:

Our hour has passed rapidly; I trust our brains have the resiliency to absorb the presented material. I know that I will reorient my own thinking anent strokes. I thank you all for being here this morning.

Summary

Two cases of berry aneurysm are presented. One of these was unruptured and both were diagnosed clinically. The need for greater clinical awareness of intracranial aneurysms is emphasized. The wide age group, the diagnostic criteria and the clinical pattern, the treatment and the surgical curability, as well as the relatively high incidence are discussed.

BIBLIOGRAPHY

1. M. Spring, S. W. Gross: "Ruptured Aneurysm of the Circle of Willis Associated with Polycystic Kidneys." *AMA Arch. Int. Med.*, Nov. 1958, 102:806-810.
2. E. F. Pontasse et al.: "Polycystic Kidney Disease and Intracranial Aneurysm." *J.A.M.A.*, 2/27/'54, 154:741-744.
3. N. Bigelow: "The Association of Polycystic Kidneys with Intracranial Aneurysms and other Related Disorders." *Am. J. Med. Sc.*, 225:485-494, May 1953.
4. Ibidem: "Multiple Intracranial Arterial Aneurysms." *AMA Arch. Neurol. and Psychiatry*, Jan. 1955, 73:76-99.
5. Jack Whisnant: "Surgery Cases in Incipient Stroke." *Medical News*, May 15, 1961, p. 22.
6. J. L. Pool: "Early Treatment of Ruptured Intracranial Aneurysms of the Circle of Willis with Special Clip Technique." *Bull. N. Y. Acad. of Med.*, June 1959, Vol. 35, # 6.
7. R. Kuhn: "Angiograms in CVA Cases." *Medical World News*, June 23, 1961, p. 20.
8. R. C. Bassett, H. H. Gass: "Ligation of Internal Carotid Artery for Aneurysmal Lesions of the Circle of Willis." *J.A.M.A.*, Oct. 27, 1951, 147:842-846.
9. R. R. Williams et al.: "Surgical Management of Congenital Cerebral Aneurysm." *Surgical Clinics of N. America*, Aug. 1955, Vol. 35, #4.
10. B. M. Bloor et al.: "Direct Measurement of Intravascular Pressure in Components of the Circle of Willis." *AMA Arch. of Surgery*, Dec. 1951, 63:821-823.
11. H. H. Gass et al.: "Intracranial Eradication of Middle Cerebral Aneurysms." *Neurosurgery*, March 1958, 15:223-233.
12. N. I. Grashchenkov et al.: "Soviet Investigations in the Field of the Vascular Supply of the Brain." *Arch. of Int. Med.*, Oct. 1960, 106:532-570.
13. Deaths, *J.A.M.A.*, May 13, 1961, 176, #6, p. 537.
14. Mayo Clinic Symposium, *Proc. Staff Meetings Mayo Clinic*, 35:473, 1960.
15. S. N. Rowe, J. Arditti: "Carotid Angiograms —Value and Hazards." *J.A.M.A.*, Oct. 7, 1961, Vol. 178, #1, pp. 63-64.
16. B. M. Montgomery: "The Basilar Artery Hypertensive Syndrome." *Arch. Int. Med.*, Oct. 1961, Vol. 108, #4, pp. 559-569.
17. "Extracranial Arterial Occlusions." Pfizer *Spectrum*, Summer 1961, Vol. 9, #3.
18. Robert Fisher, Ernest Sachs: "Carotid Artery Surgery for Cerebrovascular Accident." *Geriatrics*, Oct. 1961, Vol. 16, #10, pp. 508-514.
19. Bernard H. Smith: "Recent Advances in

Cerebrovascular Disease," *N. Y. State J. of Med.*, July 15, 1962, Vol. 62, 14:2339-2345.

20. R. Kuhn: "Strokes: Big and Little," *Current Medical Digest*, April, 1961, Vol. 25, 4:51-61.

21. P. Narasimhan: "The Value of Cerebral Arteriography in the Diagnosis of Intracranial Aneurysms," *The Indian Practitioner*, May, 1960, 5:405-411. ◄

Diabetics Increasing, But Living Longer

The number of diabetic patients in the United States has increased greatly in recent decades. According to data derived from the current U. S. National Health Survey, there are, currently, about 1,500,000 known cases of diabetes in this country, equivalent to nine per 1,000 population.

The number of diabetic patients now is more than double that in 1937, an increase largely the result of population growth, particularly at the older ages, and the greater longevity of such patients.

Known cases of diabetes are about 1⅓ times as frequent among females as among males for all ages combined. Most patients with diabetes are past mid-life; more than 80% are 45 or older; and nearly 40% are 65 and over.

Fewer patients than in the past succumb to the disease *per se;* in 1959 only about 28,000 deaths were ascribed to it. Chronic diseases, particularly those of the cardiovascular system, are by far the chief causes of death among diabetic patients. Analysis of the experience of the Joslin Clinic in Boston during 1956-1959 showed that about three-fourths of all deaths in patients with diabetes were attributable to cardiovascular-renal diseases, the bulk resulting from coronary artery disease. Diabetic coma was responsible for less than one percent of the deaths in this study.

In middle and later life, the death rate among diabetic patients continues to be at least twice that among nondiabetic persons. One effective way to reduce incidence of the disease is to prevent overweight. Many studies of insured lives, including the Build and Blood Pressure Study, 1959, of the Society of Actuaries, show that the mortality rate from diabetes is significantly higher among overweight patients than among people of lesser weight, and increases with the degree of overweight. Continued efforts to detect the disease early can be directed most profitably to overweight persons past 40—particularly women—and to those with a family history of the disease.—Reprinted from *Texas State Journal of Medicine*, March, 1961.

LABORATORY MEDICINE

Published periodically as a review of clinical laboratory procedures suitable for laboratories with minimal equipment.

Fishberg's Concentration Test

A. WENDELL MUSSER, M.D.*

THE HUMAN ANIMAL is affected by many diseases, some of which either affect the kidney primarily or secondarily. A clear understanding of the mechanism of kidney function, which is almost entirely excretory, is necessary for complete appreciation of the importance of urinary findings and the renal function tests.

The kidneys have a tremendous reserve because it is estimated that there are, in each kidney, a million functional units, the glomeruli with their tubules—the nephrons. To impair function, approximately two-thirds of the functional renal mass must be destroyed or its function lost in some manner. Only diffuse lesions will impair function enough that the loss may be measured by means of a laboratory determination. Diseases of the efferent blood vessels may result in injury to the glomeruli and thus injury to the tubules. The renal functions considered are: (1) to rid the body of waste products of metabolism, (2) to rid the body of foreign and exogenous substances, (3) to preserve electrolyte and water balance, and (4) to maintain the acid-base balance of the body.

* Formerly at Indiana University Medical Center, Indianapolis, now at Womack Army Hospital, Ft. Bragg, North Carolina.

Three Activities of Nephron Required

Formation of urine depends upon the structural and functional integrity of the renal blood flow, the glomerulus and the renal tubule. Renal blood flow to the kidneys amounts to approximately one liter per minute. More than 90% of the plasma of this liter of blood perfuses glomeruli and peritubular structures contributing thereby to excretory functions. Twenty percent of the plasma water is filtered through the glomerulus, or about 120 ml. per minute is considered to represent an average glomerular function. Many transfers occur in the proximal convoluted tubule. Many of these transfers involve "active transport", a term that implies movement of a substance through space against a concentration gradient, either reabsorptive or excretory. A substance may be completely or incompletely reabsorbed or secreted. Glucose is normally completely absorbed; phosphate, some amino acids, sulfate, uric acid and ascorbic acid are not. Secretory systems of the proximal tubule account for excretions of a variety of organic acids, many of them derivatives of hippuric acid. Some serum protein, principally albumin, escapes through the glomerular filter and is taken up from the tubule fluid, so that urine is normally protein free.

New concepts have arisen concerning the function of the Loop of Henle. The distal and collecting tubules are poorly permeable to water in the absence of antidiuretic hormone (ADH), although capable of facultative sodium reabsorption and with it water. When ADH is present, permeability of these structures increases, and they come into osmotic equilibrium with their hypertonic surroundings; the result is formation of a small volume of hypertonic urine. Other electrolytes are transferred in the tubule in a complex manner. Thus the formation of urine involves three separate activities of the nephron: (1) an adequate flow of blood to the nephron; (2) filtration of the plasma of this blood by the glomerulus; and (3) reabsorption and secretion of substances by the renal tubules.

Concentration Tests

The tests of excretory function are either (1) qualitative or semi-quantitative or (2) directly quantitative. Qualitative and semi-quantitative tests include: (1) detection and estimation of proteinuria, (2) estimates and descriptions of urinary sediment, either crystalline or organized (red blood cells, white cells, and casts), and (3) estimation of execretory function from determination of blood urea and nonprotein nitrogen. The tests which quantitatively measure excretory function are: (1) tests of excretion dyes (i.e. PSP test), (2) clearance tests, (3) tests of the function of water reabsorption, and (4) quantitative measurements of urinary protein and sediment. We shall confine our efforts to the concentration tests.

The concentration tests remain as useful indices of renal function which reflect in varying degree defects in water reabsorption in the nephrons or the response of remaining nephrons to an osmotic load. They have value primarily in the detection of early renal disease. The tests are subject to artifacts, such as prior restriction of protein and salt which diminish the osmoreceptor stimulation caused by water deprivation; another is receding edema, which unpredictably adds isotonic fluid to the urine.

Method:

Give the patient a regular evening meal at about 6:00 p.m. with a minimal amount of fluid and a considerable amount of protein. No more fluid should be taken until the end of the test. Discard all urine voided during the night, but save the first sample of urine voided in the morning. Keep the patient at rest in bed for one hour after awaking. Collect a second urine specimen at the end of the hour. If possible, allow the patient to arise and after one hour's activity, collect a third specimen of urine. Accurately determine the specific gravity of each specimen. Determine the amount of albumin in each specimen and subtract 0.003 from the specific gravity for each one percent of albumin to obtain the corrected specific gravity. If impairment of renal function has occurred, the specific gravity will rarely rise above 1.024. In disease entities that result in severe impairment of renal function, the specific gravity is usually fixed at a low level such as 1.010. Inability of the kidney to concentrate urine is a sign of tubular insufficiency related to the number of functioning glomeruli. Many times in such diseases as nephrosclerosis, hydronephrosis and pyelonephritis the impairment in concentrating ability occurs before any discernible change in the blood urea nitrogen or the urea clearance. In glomerulonephritis, the glomerular dysfunction is primary and the loss of concentrating power occurs later. In the terminal episodes of primary renal disease in which the kidney is greatly contracted, the specific gravity is fixed usually at a low range. From the above data it is obvious then that concentration tests are of great value in evaluating primary tubular disease of kidneys, but of somewhat less value in evaluating primary glomerular diseases of the kidney. In each case, however, useable information can be obtained from the procedure.

REFERENCES

1. Fishberg, A. M.: *Hypertension and Nephritis*, 5th edition, Lea & Febiger, Philadelphia, 1954.
2. Gottschalk, C. W.: Osmotic concentration and dilution in the mammalian nephron. *Circulation*, 21:861-868, 1960.
3. Lamlin, E.; Mechanisms of urinary concentra-

tion and dilution. *AMA Arch. Int. Med.* 103:644-671, 1959.

4. Leaf, A.: The kidney, water and electrolytes. *Ann. Rev. Physiol.* 22:111-168, 1960.
5. Mudge, G. H., Taggart, J. V.: Symposium on renal physiology. *Am. J. Med.* 24:659-804, 1958.
6. Smith, H. W.: *Principles of Renal Physiology.* Oxford University Press, New York, 1956.
7. Smith, H. W.: *The Kidney: Structure and Function in Health and Disease.* Oxford University Press, New York, 1951. ◄

Only As Free Men

One important point has not been very much discussed in comment on the doctors' revolt in Saskatchewan province in Canada.

Much has been said about the "strike" as a protest against government financing of medicine. Some have pointed to the "inhumanity" of refusing to treat patients. But there is much more involved in this revolt than the mere refusal of doctors to treat patients under government control.

The plan, as put into effect, is not only compulsory for all, doctors and patients alike. It is not only financed by a five percent sales tax, plus a six percent increase in the income tax, plus a yearly premium. Not only is it a socialized medicine system. It also *outlaws all private practice* by all physicians under the threat of legal penalties.

We believe this provision, the absolute destruction of the private practice of medicine is the key provision that triggered the doctors' revolt. The doctors know that in the end this prohibition will certainly destroy the intimate doctor-patient relationship on which all good medical practice depends. They know that the patient, who will have to take his medical orders from the government instead of from a freely chosen doctor, will suffer the most under such a system. At the same time they know, from study of the previous experience of others with state run medicine, that medical standards will be lowered to mediocrity, that the incentives to do research and study in the field of medicine will be removed and that as one doctor put it, "this will set back medicine 100 years."

It is interesting to note that there is also a doctors' "strike" in Austria which has had a state run medical program for some time. If government controlled medicine is such a splendid way to take care of sick people, why this other revolt against it?

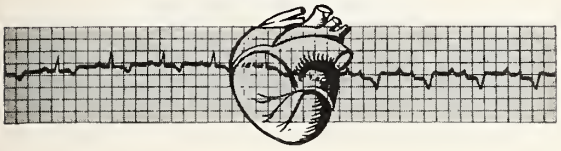
Dr. N. McCannel, writing in the July issue of *New Medical Material*, and speaking the sentiments of most doctors in Saskatchewan, states flatly, "We are not going to submit to government control of medicine.

"Every doctor in Saskatchewan—except those employed by government in the public health field—has a sign on his desk reading, 'This office is closed July 1. The occupant of this office cannot practice under the government's compulsory insurance act!'" The government has made private practice illegal. So, as Dr. McCannel put it, "We are not on strike. On the contrary, we have been legislated out of practice."

Dr. McCannel fears that there may be a mass exodus of doctors from Saskatchewan if the doctors lose their fight for free medicine. "The people will be the inevitable losers. Many doctors will simply pack up and leave. . . . Tragically, in many cases, the doctors who leave are the most respected and irreplaceable in our province."

The best doctors know that they cannot practice medicine well unless they can do so as free men. And isn't this true of everyone, workers, businessmen, lawyers and farmers, too?—*Indianapolis Star*, July 11, 1962.

Electrocardiogram
of the month



Presented as a regular feature of The JOURNAL, Electrocardiogram of the Month is a series of short talks on cardiovascular diagnosis and treatment, edited by the staff of the Robert M. Moore Heart Clinic of the Marion County General Hospital, Indianapolis.

Electrocardiographic Monitoring of Pericardiocentesis

*CHARLES FISCH, M.D.**
Indianapolis

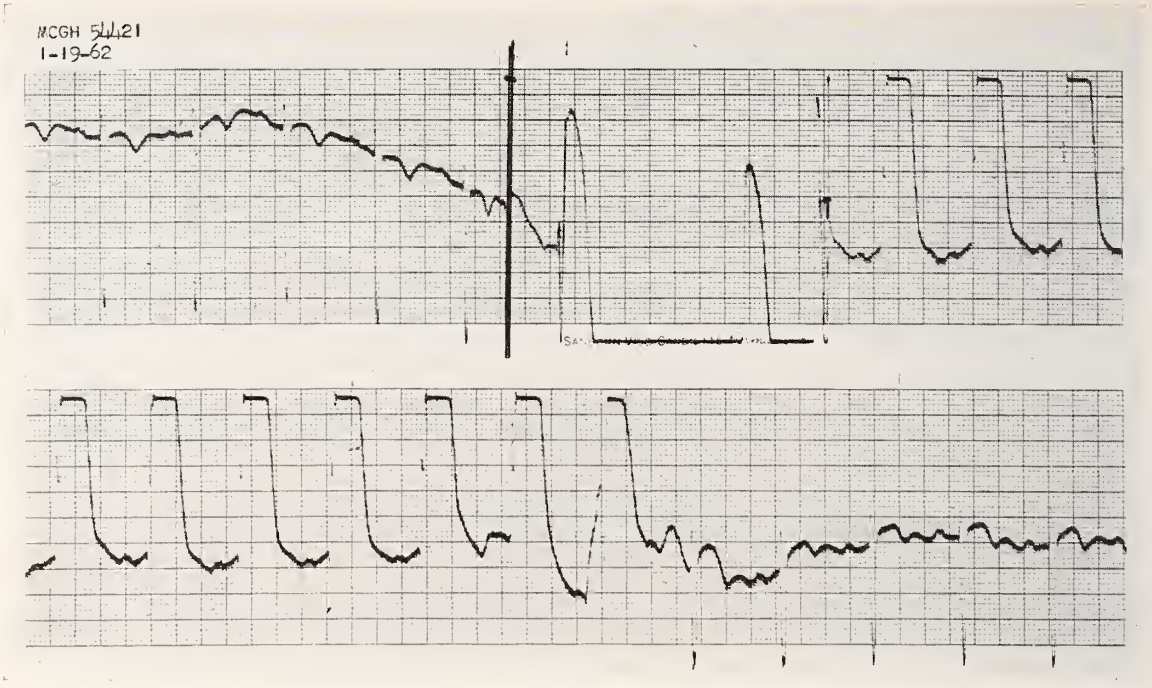
THE NEEDLE used in aspirating pericardial fluid can be connected to the exploring electrode of a conventional direct writing electrocardiograph. When the needle touches the heart ventricular ectopic beats and/or marked shift of S-T (current of injury) may appear. The magnitude of the deflection may be so large that in order to register the full swing of the stylus the amplification of the EKG machine should be reduced to 0.5 or 0.3 of the normal standardization.

One must be aware, however, of the possibility that the needle may cause pressure on the myocardium without actually penetrating the pericardium. In such case the S-T shift may be recorded without actually penetrating the pericardium. A "false" dry or negative tap may result.

The accompanying figure is an example of the use of the aspirating needle as a monitoring electrode. Control EKG is seen at the beginning of the upper strip. Direct contact of the needle resulted in violent fluctuation of the baseline. The heavy vertical lines indicate temporary cessation of recording. Unfortunately the sensitivity of the EKG machine was not reduced and consequently the full amplitude of the current of injury was not recorded. The first and third complex (because of fluctuation of the baseline the second complex did not register) demonstrate the contour of the upper part of the S-T segment. The remainder of the complexes show the isoelectric baseline but the upper part of the current of injury did not register, the horizontal appearance of the S-T segment being an artifact. On withdrawal of the needle the normal cardiogram was again recorded.

* From the Robert M. Moore Heart Clinic, Marion County General Hospital and the Department of Medicine, Indiana University School of Medicine, Indianapolis.

Supported by the Herman C. Krannert Fund of the Indiana Heart Association and the Indiana State Board of Health, Indianapolis.



THIS FIGURE demonstrates the current of injury recorded by a pericardiocentesis needle as it penetrated the pericardium and touched the myocardium.

Health, Handwriting & Humor(?)

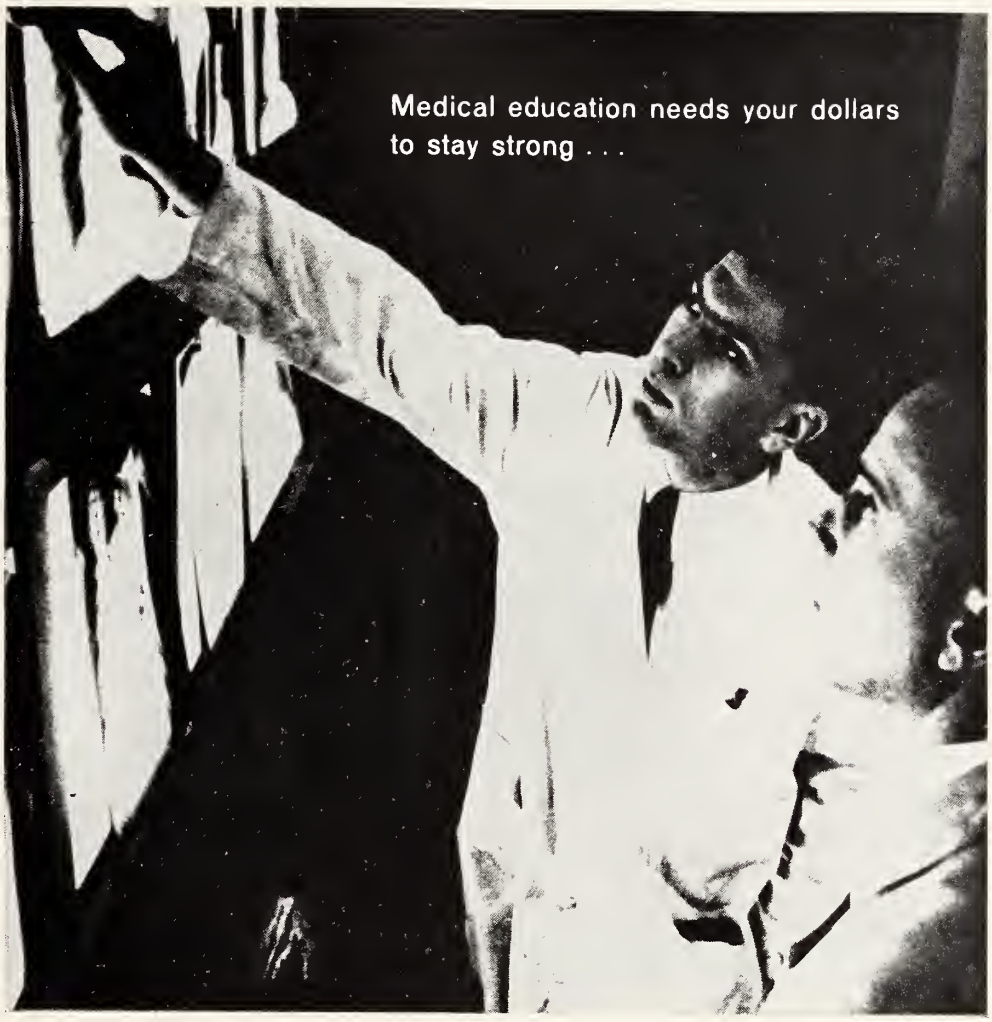
When police in Yonkers, N. Y. arrested a musician for forging a narcotics prescription they credited the alertness of the pharmacist, William Astmann, who later told them: "That prescription was too clear to have been written by a doctor."

Rightly or wrongly, in such news items and in preposterous wit, physicians for generations have been twitted about their scrawl. If such needling can correct a truly serious situation, following are a few examples which have made the rounds of medical conventions:

The spider climbs out of the ink well and walks across the prescription pad. The nurse takes the slip to the drug store, where the pharmacist then phones the clinic to ask: "Doc, you just gotta tell me that last word."

When the new doctor in town responds to a dinner invitation, the hostess cannot make out his reply. In desperation she brings it to the neighborhood pharmacist. A few minutes later he returns with a package, saying: "That will be one dollar."

One physician's prescription is so illegible that the patient uses it for two years as a railroad pass, gets into Madison Square Garden and Yankee Stadium on it, then gives it to his daughter, who plays it on the piano and wins a scholarship to a music conservatory. Reprinted in *The Bulletin,* San Francisco Medical Society, March, 1961.



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Seat Belts Save Lives

THE INJURY sustained by a moving object when it stops depends not upon the speed of movement but upon how fast it stops. Speeds of thousands of miles per hour are not injurious if deceleration is gradual enough. The more abrupt the stop the more the injury; the slower the stop the more gentle it is.

If an automobile crashes against a bridge at 30 miles per hour and the front of the car collapses to a distance of two feet, energy is absorbed to the extent of 15 times the force of gravity or 15 G. If the passengers are fastened within the car by belts, their bodies enjoy the same gradual deceleration and are subject to forces of only 15 G, which may be survived.

If the passengers are loose within the car, their bodies continue forward on impact at a speed of 30 miles per hour and impinge on relatively unyielding surfaces such as the steering wheel, instrument panel or windshield. Denting of these structures is usually two inches or less. Since the stopping distance is shorter the deceleration is quicker and the force applied is many times as great. In this example, if the stopping distance of two feet is compared to a stopping distance of two inches, the force applied to the passengers is twelve times as much or 180 G. A one-hundred-pound person under the force of 180 G weighs approximately nine tons. Forces this large are rarely survivable.

Such physical facts have been worked out in laboratories many times. Now the life saving and injury sparing effects of seat belts have been observed on the highway. Automobile crash effects have been studied in many states. The uniformity of the results in regard to seat belts has been astounding. The latest study in California indicates that users of seat belts sustained 35% fewer severe and fatal injuries than did unbelted passengers in similar cars subjected to comparable accidents.

Other studies have arrived at figures of 40% and 42%. Such observations have been

repeated often enough by independent observers to establish the fact that almost exactly two out of five of the 25,000 auto crash casualties this country now suffers annually would be prevented by proper use of seat belts alone.

Other safety devices, such as protective padding on all inside car surfaces and high energy absorbing hydraulic bumpers and head supports to prevent neck injury in rear impacts, must await the decision of automobile manufacturers who have been singularly uninterested in building safety into automobiles.

In the meantime the greatest safety device is the seat belt, sturdily made to high performance specifications, strongly attached to the car frame and worn tightly fastened whenever the car is in motion.

The tendency to not fasten the belt when making short trips around town is a dangerous one. Over one-half of fatal accidents occur within 25 miles of home.

One Good Dose of Legibility

PENMANSHIP, they say, is a lost art.

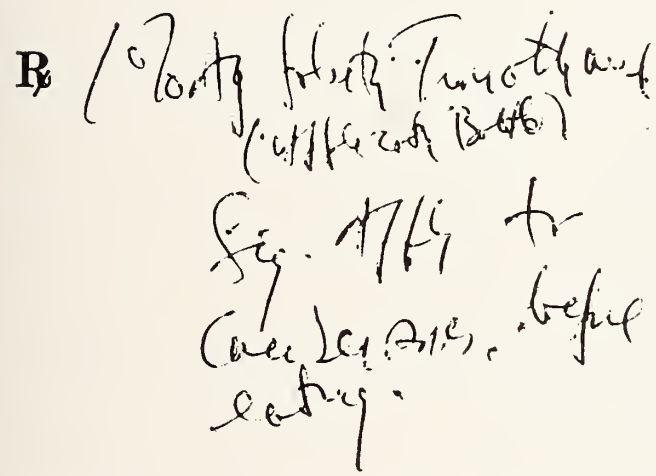
But, frankly, we wonder if it has ever been "found" as far as the majority of physicians is concerned.

The magazine, *American Professional Pharmacist,* regularly uses a feature entitled, "Can You Read These Rx's?" Then it reproduces various prescriptions to illustrate the point that penmanship ability is not one of the stronger fortes of doctors.

The magazine was good enough to lend us one of the 'script reproductions and we use it here to illustrate the point we are trying to get across: That, indeed, most of us could use a good dose of legibility.

We venture to say that, in years hence, should one of these 'script scrawls be unearthed by geologists trying to obtain clues to our culture, the opinion could well be that American civilization perished because we were unable to communicate with one another.

In any regard it's something to think about if for no other reason than providing an escape mechanism from taxes, politics and the King-Anderson bill.



Doctor, can *u* read this? (For interpretation, see p. 1528).

Guest Editorials

Skin Cancer—Best Method of Treatment?

OVER ALL, the methods for treating cancer of the skin have remained basically the same in the last quarter century. Refinements have been added to technics, but

aside from the introduction of chemo-surgery (by Mohs) the procedures remain essentially the same in number and type.

The therapeutic means which have proved sucessful still are scalpel surgery, electric knife, electro-coagulation, actual cautery, topical radium, interstitial radium (needles or radon seeds), x-ray, and chemo-surgery.

A fact which remains, is the importance of the selection of the most appropriate method of management for the skin cancer in question. *There is still no one best method of treating all skin cancers.* Each case must be weighed according to the advantages of treatment by one means or another. Size, configuration, location, type of pathological features, and history of previous treatment if any, all have a bearing on the decision of which course should be used. Each case must be individualized. The advantages and limitations of the various methods must be considered in regard to the case which presents itself.

Multiple comprehensive therapeutic ability plus clinical skill is the demand which must be met for the handling of skin cancers. If the attending physician cannot carry out the treatment, or decide which method should be used, he should refer the patient to someone who can. He should never use a method "just because he has always used it." Total evaluation of all therapeutic procedures and total evaluation of the skin cancer or cancers in question should be constantly in the mind of the physician.

An essential principle to be constantly aware of, no matter which form of treatment is used, is that every malignant cell must be removed or destroyed. Cosmetic considerations take second place to clinical results. Cure of the cutaneous malignancy is the goal to be obtained. Constantly pressing for that achievement should at all times be the aim of the physician in charge. Whoever treats the cutaneous cancer originally has the highest percentage of cure in his favor. This is a very important fact to be kept in mind if a physician assumes the responsibility for treating a lesion. Rapidly diminishing returns are in store for the second, third and fourth persons who carry out treatment of the skin cancer.

Only a bold approach can prevail when one is dealing with cancer of the skin. A timorous physician or a timorous approach cannot be tolerated.

The value of curettement in treatment of a skin cancer is and has been undervalued and in many instances forgotten. It is of particular and greatest value when some form of radiation or electro-surgery is to be used. Curettement is not only an auxiliary procedure, it is a great aid in treatment. By using it the greater part of the lesion is removed, its borders definitely established, a better exposure to the irradiation or electro-surgery is obtained, and a specimen for microscopic study can be assured. Sometimes only curettement is done after the introduction of local anesthetic in order to obtain a specimen to see if one is dealing with a malignancy or not.

An habitual index of suspicion in regard to cancer of the skin is of course present in the dermatologist. It will, however, have to be higher in all physicians in the future due to the prolongation of life in general, in as much as most of the cancers are found in persons past or in their fourth or fifth decades.

Following the suspicion of the possibility of skin cancer, should be the biopsy. Time has proven that a proper removal of tissue for biopsy is without danger. An excisional biopsy is well in order in many instances. By that procedure there is a very good chance of not only having a good specimen for serial microscopic examination, but also having a cure if the excision is performed correctly. Again comes the necessity of evaluating what is clinically found and to choose the best method possible for removing or destroying that particular growth in toto, in case the excisional biopsy has not completely removed the tumor.

Dismissal of the patient on completion of the active treatment is to be discouraged. A regular system of follow up visits for inspection over a period of at least three years should be carried out. This system should be followed even though the attending physician is certain he has obtained a cure, and even though the biopsy specimen showed all margins to be free of the growth.

Thoroughness, versatility, and accuracy

of the means of treatment, not a "cut and dried routine" for the means of therapy, brings to pass the sought after and desired result—eradication of the malignant growth. These coupled with prolonged post-treatment inspection brings to the individual treated and the attending physician the satisfaction of a job well done.

S. R. Mercer, M.D.
Fort Wayne

"Why, You'd Take Us Back to the Horse and Buggy"

THE BASIC FALLACY of this all-too-common cliché is a confusion between technology and such other aspects of human life as morality and political principles. Over the centuries, technology tends to progress: from the first wheel to the horse and buggy to the railroad and the jet plane. Looking back on this dramatic and undeniable progress, it is easy for men to make the mistake of believing that all other aspects of society are somehow bound up with, and determined by, the state of technology in each historical era. Every advance in technology, then, seemingly requires some sort of change in all other values and institutions of man. The Constitution of the United States was, undoubtedly, framed during the "horse and buggy" era. Doesn't this mean that the railroad age required some radical change in that Constitution, and that the jet age requires something else? As we look back over our history, we find that since 1776, our technology has been progressing, and that the role of government in the economy, and in all of society, has also grown rapidly. This cliché simply assumes that the growth of government must have been required by the advance of technology.

If we reflect upon this idea, the flaws and errors stand out. *Why* should an increase in technology require a change in the Constitution, or in our morality or values? *What* moral or political change does the entrance of a jet force us to adopt?

There is no necessity whatever for morality or political philosophy to change every time technology improves. The fundamental relations of men—their need to mix their labor with resources in order to produce consumer goods, their desire for sociability, their need for private property, to mention but a few—are always the same, whatever the era of history. Jesus' teachings were not applicable just to the ox-cart age of first century Palestine; neither were the Ten Commandments somehow "outmoded" by the invention of the pulley.

Technology may progress over the centuries, but the morality of man's actions is not thereby assured; in fact, it may easily and rapidly retrogress. It does not take centuries for men to learn to plunder and kill one another, or to reach out for coercive power over their fellows. There are always men willing to do so. Technologically, history is indeed a record of progress; but morally, it is an up-and-down and eternal struggle between morality and immorality, between liberty and coercion.

While no specific technical tool can in any way determine moral principles, the truth is the other way round: in order for even technology to advance, man needs at least a modicum of freedom—freedom to experiment, to seek the truth, to discover and develop the creative ideas of the individual. And remember, every new idea must originate in some one individual. Freedom is needed for technological advance; and when freedom is lost, technology itself decays and society sinks back, as in the Dark Ages, into virtual barbarism.

The glib cliché tries to link liberty and limited government with the horse and buggy; socialism and the welfare state, it slyly implies, are tailored to the requirements of the jet and the TV set. But on the contrary, it is socialism and state planning that are many centuries old, from the savage Oriental despotisms of the ancient empires to the totalitarian régime of the Incas. Liberty and morality had to win their way slowly over many centuries, until finally expanding liberty made possible the great technologi-

cal advance of the Industrial Revolution and the flowering of modern capitalism. The reversion in this century to ever-greater statism threatens to plunge us back to the barbarism of the ancient past.

Statists always refer to themselves as "progressives," and to libertarians as "reactionaries." These labels grow out of the very cliché we have been examining here. This "technological determinist argument for statism began with Karl Marx and was continued by Thorstein Veblen and their numerous followers—the real reactionaries of our time.

Murray N. Rothbard

(Reprinted with permission from "Clichés of Socialism," Number 7, publication of The Foundation for Economic Education, Inc., New York, N.Y.)

Finding the Unknown Diabetic: The Physician's Role

EACH YEAR THE American Diabetes Association sponsors a drive to find unknown diabetics and to guide them to medical care. This association, which was founded by and is composed of physicians, actually works the year round in diabetes detection. However, the feature of this drive is an annual, nationwide Diabetes Week, during which as many persons as possible are screened for diabetes. THIS YEAR DIABETES WEEK IS NOVEMBER 11-17 THROUGHOUT THE UNITED STATES.

One of the best ways to help give better medical care to more people is in serving in some capacity during Diabetes Week. Out of every 120 patients coming to a physician's office, one will be an unknown diabetic.

The basic test for detecting diabetes is to obtain a urine specimen two hours after a full meal containing plenty of carbohydrates and to subsequently test the specimen for sugar. There are many means of testing but the American Diabetes Association produced the Dreypak which we use in this type of mass screening. The Dreypak is a strip of paper which is taken home by the individual to be tested. Two hours after eating a high carbohydrate meal, he obtains a urine specimen, dips in the Dreypak, lets it dry and returns it by mail or other means to the particular collection center. The tester then adds one drop of glucose oxidase solution and reads the result one-half to two minutes later. A positive reaction is indicated by any color between light green and dark blue.

Every individual tested is asked the name of his own private physician. If the test for glycosuria is negative the individual is informed. If the test is positive both the individual and his physician are informed and the individual is advised to see his physician for further examination. Sometime later there is a follow-up to help make certain that the advice has been or will be heeded.

Of course every positive urine sugar does not necessarily mean diabetes mellitus, but it does mean that you, the physician, should determine the cause thereof. Using the private physician for reporting and follow-up keeps mass drives such as this in the private practice of medicine.

The best way an Indiana physician can cooperate is to serve in the Diabetes Detection Drive in his own community. If there is no drive planned in your community each physician may conduct one from his own office. Supplies of the Dreypak test may be obtained from the American Diabetes Association, 1 E. 45th St., New York 17.

By your assistance you will improve your knowledge of the disease (and allay fears concerning false rumors); correct the statistics on incidence of the disease; derive a sense of satisfaction and build goodwill within your practice. A Diabetes Detection Drive can succeed only with the cooperation of the practicing physician. You are the first and main line of detection and the first and only line of treatment. Your help is essential if unknown diabetics are to be brought under medical care and thus remain members of the community.

REMEMBER: DIABETES DETECTION WEEK THIS YEAR IS NOVEMBER 11-17

Robert W. Mouser, M.D.
Chairman of the Indianapolis
Diabetes Detection Drive

Medical Philosophy in the Lay Press

"MOTHERS, BABIES, AND LAWS" is the title of an editorial in *The National Observer,* August 20, 1962, and for such a piece to appear in such a paper, published by Dow Jones and Company, Inc.—is enough to make one sit up and take notice. It will be gratifying to most physicians to read this, regardless of any particular attitude toward the Finkbine case. In our view, the taking of this case out of the frame fashioned for it by the sensational press and placing it in proper perspective with pertinent background information is a feat of journalism worthy of our attention.

Below is reprinted the meat of the discussion, about half the original article, which was given one third of an entire page of the newspaper. Start it, and you will certainly finish it.

* * *

"The Finkbine case did what neither legal nor medical societies have been able to do in their questioning of our abortion and birth control laws. It reminded everybody that these laws are not remote abstractions but things full of consequence for every home. Today a Mrs. Finkbine. Tomorrow, perhaps, any mother.

* * *

But that uncertainty only makes the question more poignant. Who is to deal with it? Laws, which give an arbitrary answer that the birth process cannot be stopped, or the mother, who can choose to keep the gift of life from being a curse?

This question is at the heart of all our laws about abortions and birth control. In five of our states the law allows no choice whatever on birth control; information is prohibited without exception even if pregnancy would result in death for the mother. In one of them, Connecticut, the sale of contraceptives is a criminal offense. There are also birth control prohibitions of varying degrees in 17 of the other states. A few states, like Arizona, permit abortions for the safety of the mother, but there is no state where a doctor dares risk the legal hazards to perform a therapeutic abortion solely because of injuries to the unborn child.

* * *

All our restrictive laws are rooted in ideas, metaphysical and religious, about where human life begins. Under our laws the unborn embryo is treated as if it were already a living human being, even in the early weeks when it has not yet begun to sustain its existence. In the case of birth control laws, even the unfertilized egg is so viewed and therefore it is a "crime" to interpose any barrier between the egg and the process of fertilization which is necessary for birth.

Yet there are endless paradoxes and confusions, legal and philosophical. The human female ovulates once a month for some 30 years and no one thinks it evil that the majority of those eggs do not become human beings. All the laws, secular and religious, sanction birth control by other than chemical or mechanical means, although continence in marriage is also a deliberate act to deprive the egg of fertilization.

* * *

These paradoxes are laid bare in practice. Even in Connecticut the authorities dare not enforce the birth control laws literally. They do not pretend to, except when faced with an open challenge that they cannot ignore.

So it is with abortions. They are performed every day throughout the land by accepted subterfuges to give them the color of legality. In addition, the frankly illegal abortions, with all their tragedies, are numberless.

Thus our society recognizes in real life what it still tries to deny in law—that the beginning of life and the giving of it is a deeply personal question that can be answered only in the innermost heart of each man and each woman.

* * *

What the odyssey of this mother from Arizona does is to bring everyone face to face with that question when we would all much prefer simply to avoid it. This is no

story from a social worker's casebook on juvenile delinquency, or from books about the cruelty of life to unwanted babies in India, something half unreal to most of us. This strikes home because it is the real life story of any mother who wants and prays for more children, but who has decided for herself that human life is too precious a thing to knowingly and deliberately risk its being a tragic gift.

* * *

We do not know whether we would make the same decision if it were ours to make. It is not easy to know where human existence begins and even more terrible to have to decide whether a life of deformity, of feeble-mindedness, or of misery is still worth too great a price to be denied even before an organism has the consciousness that alone makes it human.

But it is precisely because we are not so wise as to know the rightness of this woman's decision that we think our present laws are wrong. They have sent her wandering over the earth because they presume to know, absolutely and for every circumstance, the unknowable questions of life."

This is certainly not gobbledegook.

A. W. Cavins, M.D.
Terre Haute

Solution:
1% Aqueous Solution Tronothane (applicator bottle) Sig: Apply to canker sores before eating.

Editorial Notes . . .

Eugene Beesley, president of Eli Lilly and Company is also chairman of the board of the Pharmaceutical Manufacturers Association. In testifying recently before the House Interstate and Foreign Commerce Committee on proposed legislation affecting the drug industry, Mr. Beesley pointed out that safety checks on new drugs have long been more effective in the U. S. than anywhere else, and that these safeguards should be improved constantly. In speaking of the Commission on Drug Safety which was recently formed by the PMA he said, "Sound legislation in the public interest requires a wise and careful balancing of government controls with private freedoms. Public health will suffer if we concentrate on either factor alone and neglect or retard the other."

Hexachlorophene disinfectant for use in the preoperative scrubbing of patients is milky white in appearance and thick in consistency. It resembles Milk of Magnesia and, according to a report in *JAMA*, has been swallowed by patients by mistake. Its effects are poisonous. All such disinfectants should be kept in labeled containers and should be safeguarded when used in a patient's room.

Paralytic polio is occurring at the same record-breaking low rate as it did last year. As of August 11, the approximate midpoint of the polio season, 274 cases had been reported for the entire country. Since 1955 almost 100 million persons have received inactivated vaccine. In addition, 38 million doses of oral vaccine have been given. The U. S. Public Health Service has made a careful study of all cases of poliomyelitis which have occurred within a 30-day period of vaccination. Those cases occurring during epidemics have not been studied in all instances since the infection might have been acquired before vaccination. There have been 12 non-epidemic cases of polio developing within 30 days of the taking of oral vaccine (out of 38 million doses). Each of these has been investigated minutely by the advisory committee. It is not possible to establish that any of the 12 cases were caused by the vaccine. All were thought to be of natural origin. The surgeon general will continue surveillance of all polio patients. Special attention is being directed toward the disease in adults, since several of the above-mentioned 12 cases were in adults.

The Veterans Administration reports that the number of mental patients recovering

and leaving the hospital in fiscal year 1962 was 300% greater than the number returned to community life in 1953. There were 7,617 patients discharged in 1953, as compared to 24,416 in 1962. The increase is attributed to the establishment of day care centers, the use of hospital programs which increase patients' contacts with other people, growth of the VA foster home and halfway house programs and to vocational counseling and job placement.

The Ames Company of Elkhart has introduced on a trial basis a new method of providing samples for physicians' use. The method is designed to prevent the accumulation of samples by physicians who do not need them. It is also an effective measure against the entrance of samples into commercial channels. When it is desired to enable the physician to provide his patient with a new preparation at no cost to the patient, Ames will issue to the doctor a preprinted prescription called a "Scriptstarter" ®. The physician enters the patient's name and the directions. The patient has the prescription filled by his druggist. The druggist is reimbursed by Ames when he sends them a special tab which accompanies the "Scriptstarter" ®. In addition to avoiding sample deluges in doctors' offices and preventing diversion of samples to unauthorized repackagers, the method also maintains a good pharmacist-patient relation, and improves the pharmacist's prescription volume.

The pharmaceutical manufacturing industry may be proud of its public service contributions. The companies and their charitable foundations donated some $25 million to public service activities in 1961, about four times as much on the average as other corporations spend. Besides such projects as United Funds, hospitals and churches, the drug companies have their special objects of concern such as medical missionaries overseas, earthquake and flood relief, replacement of uninsured losses of drugs due to fire and flood, epidemic relief and many others.

The AMA Education and Research Foundation has adopted a special problem in medical research. Even with all the numerous and seemingly adequate federal grants for research it is possible for a researcher to come to a blind end and fail to complete his investigation because of the lack of a relatively small amount of money. Any research project should be continued until it discovers something or demonstrates that nothing can be discovered. Since financial grants are for definite amounts of money and for definite periods of time, a researcher may reach the critical stage of the work and require a small amount of money to finish or to tide him over until the next grant is effective. AMA-ERF already has been able to support several researches with a comparatively small amount of money at a critical time and help the workers achieve success.

If it was possible to apply radiation energy to a tumor without subjecting surrounding normal tissue to radiation, it would be possible to cure almost any malignancy. However, all radiation treatment applies to the tumor and also to normal tissue. Radiation is helpful because it affects malignant cells more than normal ones, even if applied in equal dosage. Radiation will be more helpful when its tumor affects are increased and its normal tissue affects are decreased. The manner in which cells respond to radiation will be subject to an intensive study at the University of Maryland under a $150,000 grant from the Public Health Service. Surgeon General Terry says: "The problem is to increase the differential response between the tumor and nearby normal tissue, so that the radiation will effectively destroy the tumor and leave the normal tissue essentially unharmed . . . an important gap exists in our knowledge of what happens in cells under the impact of radiation."

Fire doors in public buildings are installed to prevent the spread of fire, to prevent the spread of smoke and noxious gases and to prevent the access of oxygen to the fire. Door holders which close the door when subjected to high temperatures fail to prevent the passage of smoke and oxygen unless the

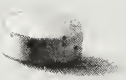
fire is close to the door. Until recently, therefore, fire safety experts have advised leaving fire doors closed and have considered it well worthwhile in the interest of safety to require all personnel to open the door each time passage was desired. An electromagnetic door holder is now made which does not depend on the proximity of fire for actuation. The holder releases all doors in the circuit on signal from a fire detection system, regardless of where the fire is detected; on opening a manual switch, or if there is a power failure. Individual doors may also be closed manually with ordinary effort.

Two-thirds of the physicians tested at the AMA exhibit laboratory in Chicago in June had significant abnormalities. Many doctors had more than one abnormal finding in the total of 17 tests. There were 2,212 abnormal results reported in the 1,771 physicians tested. Blood chemistry was abnormal in 1,963 tests, urinalysis yielded 122 abnormalities and the blood counts were off 122 times. Elevated blood sugar was found in 21%, elevated cholesterol in 30% and elevated uric acid in 36%. The exhibit chairman, Dr. Thomas Peery, pointed out that chemical abnormalities do not necessarily indicate actual disease, but should be followed up carefully. He thought that the experience might lead to the inclusion of more laboratory tests in periodic health checks.

Applications are being taken for a continuation of Smith Kline & French Foreign Fellowships for junior and senior medical students. The fellowships are given for the purpose of allowing students a foreign medical experience during their off-quarter. During the first three years of the program, $150,000 has been awarded to 92 students who have served in 34 countries. The grant is sufficient to pay travel costs and living expenses overseas. In the case of married students, the wife may share in the project if her professional talents allow her to be of assistance in the foreign medical facility. ◄

APOLOGIA

The name of Maynard A. Austin, M.D., Evansville, was inadvertently left out of the list of donors to the building fund which ran in the August issue of *The Journal*. Dr. Austin, president of ISMA in 1942, was in fact the first donor. We sincerely regret this omission.



Remember when handkerchiefs were used for stuffy or runny noses? *That was before Naldecon.* Naldecon lets your head-cold patient breathe the way he should. Through the nose. Honest relief that lasts up to 8 hours with one sustained-action tablet. (When you need it, even *half* a tablet retains the sustained-action feature.) The counterbalance between *two* antihistamines and *two* decongestants* usually gives excellent results—seldom causes overstimulation or sedation. Keep handkerchiefs for showing. Prescribe Naldecon.

*Each tablet contains phenylephrine HCl 10 mg., phenylpropanolamine HCl 40 mg., phenyltoloxamine citrate 15 mg., chlorpheniramine maleate 5 mg.—half in the outer layer, half in the sustained-action core. Each teaspoonful (5 cc.) of Naldecon Syrup contains the equivalent of one-half tablet.

NALDECON®

long-acting nasal decongestant/ antihistamine

BRISTOL LABORATORIES
Div. of Bristol-Myers Co.
Syracuse, New York



The Significance of Drug Substitution

NEWELL STEWART*
New York, N.Y.

SUBSTITUTION HAS EXISTED for centuries in every field of endeavor. Unethical substitution of imitations, counterfeits and other forms of inferior goods touches our lives in many areas, but we are concerned in this article with substitution as it affects drugs, particularly those dispensed on a prescription or order written by a physician.

Originally the practice of substitution involved the replacement of one drug by an entirely different drug, which frequently had the same physical appearance. Often fraud was involved, but sometimes replacements were necessary when the drug of choice was not available because of war, drought and other occurrences beyond the control of the dispenser.

Some writers have traced the practice back to 880 B.C. and there are many references through the intervening centuries to the substitution of one drug for another. The first legal step taken against the practice may well have been the edict of Emperor Frederic II in 1227 A.D. One of the sections of this edict forbade all substitution under the penalty of confiscation of all goods if done without the consent of the prescribing physician. This has stood the test of time and is today the only exception recognized by law.

Brand Substitution in the 20th Century

During the latter part of the nineteenth century, physicians began to prescribe drugs manufactured by specific companies, either by a brand name or by designating the manufacturer's name. The question arose as to whether the drug dispensed must be that of the particular manufacturer specified or whether some other manufacturer's product could be substituted.

An 1897 editorial in the *American Journal of Pharmacy* stated: "Certainly every physician has a right to specify any particular manufacturer's preparation, and the patient has a right to receive it. If the pharmacist to whom the prescription is presented for compounding does not care to furnish the product of the specified manufacturer, he has a right to decline and return the prescription. He has no right, however, to substitute his own or anybody else's preparation for the one specified, even if he is sure the substitute is as good or, as he may think, better."

This editorial continues to express the position of pharmacy. During the past 20 years, often termed the age of miracle drugs, it has been the usual practice for a physician to specify a brand and for the pharmacist to dispense the brand specified.

Legally What Is Substitution?

Substitution is frequently defined as "the dispensing of a different drug or brand of drug in place of the drug or brand of drug ordered or prescribed without the express permission of the prescribing practitioner." Substitution is specifically prohibited by the pharmacy laws and regulations in most states. In those states without a specific law or regulation, the enforcing agency usually has a basis of action under other sections of the law which can be applied to find

Continued on page 1540

* Executive Vice President, National Pharmaceutical Council.



ENTOZYME®

helps your gallbladder patient digest fat

The gallbladder patient who "can't resist" rich, succulent, greasy foods must often pay for his gastronomical indiscretions with the discomforts of fat-induced indigestion. However, these unpleasant aftereffects can frequently be relieved or prevented with Entozyme, a natural digestive supplement. Six tablets, the usual daily dose, will digest 60 gm. of fat or more. That's 50 to 90 per cent of an adult's normal daily intake. Bile salts stimulate the flow of bile and enhance the lipolytic activity both of Entozyme's Pancreatin and the patient's own lipase. Working together, Bile Salts and Pancreatin greatly aid the emulsification and transport of fat. Each enteric-coated Entozyme tablet contains Bile Salts (150 mg.) and Pancreatin, N.F. (300 mg.). Also 250 mg. of Pepsin, N.F.—enough to digest 8 gm. of protein.

A. H. Robins Company, Inc., Richmond 20, Virginia

such an offense as one involving gross immorality, unprofessional conduct, etc.

If a brand is designated by the physician on a prescription, a pharmacist may not dispense the product of another manufacturer unless he contacts the physician and obtains his authorization. Since it is legal to do this by telephone, physicians should be tolerant of pharmacists calling for this purpose. With this procedure the physician knows exactly what his patient is receiving and the pharmacist is properly discharging his professional responsibilities.

Those opposing brand designation claim that substantial savings can be passed on to the public if drugs are supplied to patients under their generic name. They claim that the drug available under a generic name from another manufacturer is fully equivalent to the brand-named product. If this is true, what difference does it make if a drug of some other manufacturer is dispensed in place of the brand specified? Is there any such thing as a generic equivalent? Do all such drugs have the same therapeutic response?

Difficulty of Determination

There are many variables in treating a disease, depending upon numerous factors. In specifying a brand of drug for his patient, the physician eliminates one possible variable. When the patient does not respond to the brand of drug which has been giving results with others, the physician then can change the treatment.

However, when a so-called generic equivalent is dispensed, there is no sure way of determining whether the drug of choice is at fault or whether there is a deficiency in the product dispensed.

The physician knows how to anticipate possible allergic reactions and can advise his patient accordingly. When a so-called generic equivalent is dispensed, there can be a loss of valuable time with possible ill effects to the patient when the physician has to investigate the many sources of supply that may have been utilized.

In designating a brand, the physician relies upon the manufacturer's quality control procedures, experience, research and reputation. He knows there is only a minute chance of a substandard product or variation and is assured his patient is receiving the desired dose. If the medication is a sustained release or enteric type, he knows the drug will be released over the proper period of time and where intended.

The physician also knows that the manufacturer of the brand he has designated does not market a drug until its "shelf life" has been carefuly determined. He can be assured his patient will not be subjected to possible ill effects due to deterioration. Brand-named drugs marketed by reputable manufacturers undergo months and even years of testing to assure the potency and reliability of the product.

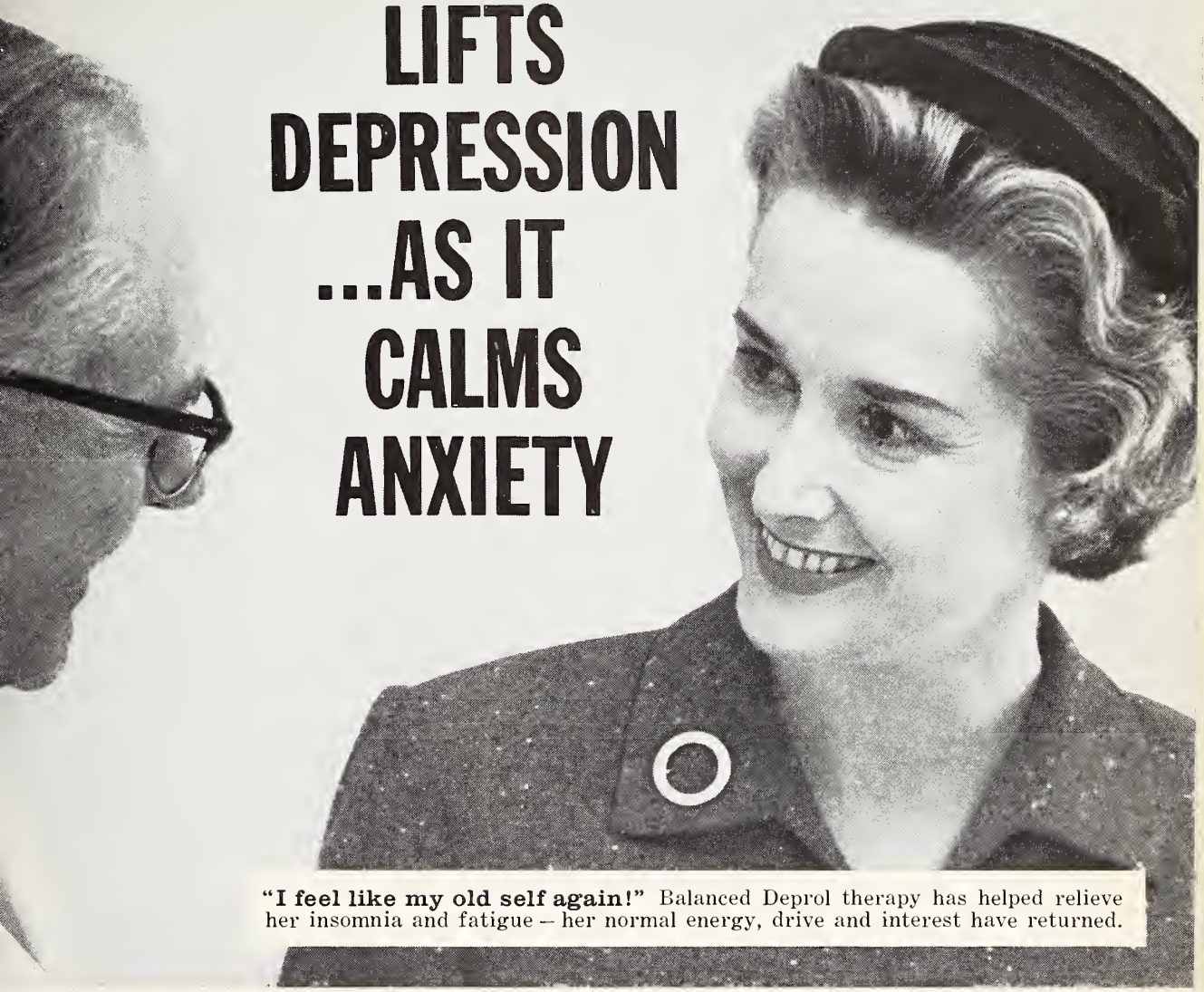
The Federal Food and Drug Administration checks upon the quality of drugs but lack of personnel and operating funds limits this type of work to a bare minimum. And it is doubtful whether it ever would be possible to achieve 100% compliance with the standards. However, this is not the full story. A drug product when analyzed may show the content of active ingredient is correct but still may not yield the proper therapeutic response.

The Importance of Formulation

It should be emphasized that a pharmaceutical company does not usually market a drug for patient use in its basic chemical form but makes it available in dosage forms. A particular dosage form, e.g., a compressed tablet, of a given drug sold by one pharmaceutical company is not equivalent to the same type sold by another company, even if it were possible for the two manufacturers to use the same lot of bulk drug. Not only will the pharmaceutical adjuvants, used with the drug to make the dosage form, probably be different from manufacturer to manufacturer, but it is almost certain that there will be differences in the method of preparation. The innumerable variations possible in pharmaceutical processing and the chemical and physical influence of the thousands of adjuvants used in formulations provide a basis for differences

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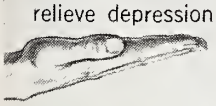
LIFTS DEPRESSION ...AS IT CALMS ANXIETY



"I feel like my old self again!" Balanced Deprol therapy has helped relieve her insomnia and fatigue – her normal energy, drive and interest have returned.

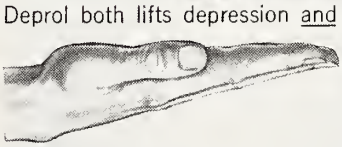
Brightens mood...relaxes tension

Energizers relieve depression





Deprol both lifts depression and calms anxiety





Tranquilizers reduce anxiety

CD-7393

Dosage: Usual starting dose is 1 tablet q.i.d. When necessary, this may be increased gradually up to 3 tablets q.i.d. With establishment of relief, the dose may be reduced graduolly to maintenance levels.

Composition: 1 mg. 2-diethylaminaethyl benzilate hydrochlaride (benactyzine HCl) and 400 mg. meprobamate.

Supplied: Battles af 50 light-pink, scored tablets.

Write far literature and samples.

▲Deprol▲®

WALLACE LABORATORIES
Cranbury, N. J.

in biological effects which frequently are significant in therapeutic results.

Some of these intangibles can be very important. The amount of pressure used in compressing a tablet affects its disintegration. A tablet which does not disintegrate, obviously can give no therapeutic results. Many vitamins when mixed with certain other ingredients lose potency. The same thing holds true for some of the antibiotics. In certain ointment bases they may lose antibacterial activity. Contaminants due to lack of control, impurity of raw materials, unsanitary manufacturing conditions, etc. have been known to cause untoward reactions. For example, vitamins given to children have been found to be contaminated with estrogens. The importance of formulation is documented in the scientific literature by a multitude of reports by researchers both in industry and educational institutions. The specificity of a brand-named drug cannot be overemphasized.

Physicians Are Knowledgeable

Contrary to claims made from time to time, physicians do not rely solely on advertising and high pressure sales efforts for their information about drugs. Through exchange of information with colleagues, study and personal experience they know the pharmaceutical companies which are dependable and the brands of drugs which give the required therapeutic results. Any efforts to legalize substitution of one brand for another without the physician's express permission is contrary to public policy and the well-being of the patient. Substitution should not be condoned under any circumstances. Physicians should insist that brand specifications on their prescriptions be honored and support the various agencies which enforce the policy of "no substitution." This is the only way a physician can have full control over the treatment of his patient. ◄



In intestinal "grippe"

prompt 4 way check of diarrhea

- Curbs excessive peristalsis
- Adsorbs toxins and gases
- Soothes inflamed mucosa
- Provides intestinal antisepsis



POMALIN

TRADEMARK

Liquid

EFFECTIVE ANTIDIARRHEAL

FORMULA: *Each 15 cc. (tablespoon) contains:*

Sulfaguanidine U.S.P.	2 Gm.
Pectin N.F.	225 mg.
Kaolin	3 Gm.
Opium tincture U.S.P.	0.08 cc.
(equivalent to 2 cc. paregoric)	

DOSAGE: **Adults:** Initially 1 or 2 tablespoons from four to six times daily, or 1 or 2 teaspoons after each loose bowel movement; reduce dosage as diarrhea subsides.

Children: ½ teaspoon (=2.5 cc.) per 15 lb. of body weight every four hours day and night until stools are reduced to five daily, then every eight hours for three days.

SUPPLIED: *Bottles of 16 fl. oz. (raspberry flavor, pink color)*
Exempt Narcotic. Available on Prescription Only.

Winthrop LABORATORIES
New York 18, N. Y.

Before prescribing be sure to consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.



Gleaned from the British Medical Journal

JACK W. HICKMAN, M.D.
Indianapolis

The potential hazards of tetanus antitoxin are well known, but Brindle and Twyman[1] point out that tetanus toxoid injections are not entirely without hazard. They report four cases of allergic reactions following the administration of tetanus toxoid. Three patients developed angioneurotic edema and the other had generalized urticaria. Only one patient had a personal history, and one a family history of allergy. Fortunately, all four patients had prompt reversal of the symptoms after 0.5cc of 1:1,000 Adrenaline. The authors emphasize that patients should be observed for at least 10 minutes following the injection.

* * *

It will be interesting to follow further reports on cigarette smoking and serum cholesterol levels, especially since the report of Konttinen.[2] This well-documented study of 314 healthy young men fails to confirm the previous work of other investigators which had shown higher lipid levels in smokers than in non-smokers. In the present study, the mean cholesterol level was 203.8 mg. % for non-smokers and 202.3 mg. % for heavy smokers, with "light" and "moderate" smokers at about the same level. It now appears as though further studies will be needed to confirm what was an accepted, even though completely unexplained, fact.

* * *

About the only diagnostic procedure that is helpful in the diagnosis of multiple sclerosis is once more confirmed in a report by Foster and Horn.[3] Gamma globulin levels in the spinal fluid of 200 subjects were done, and elevated values were found in patients with multiple sclerosis. The authors believe that this measurement is currently the best laboratory test available to aid in making this diagnosis. The colorimeteric measurement is not done in many areas in this country, but, with the number of confirming reports, more laboratories should set up procedures to help diagnose this puzzling condition.

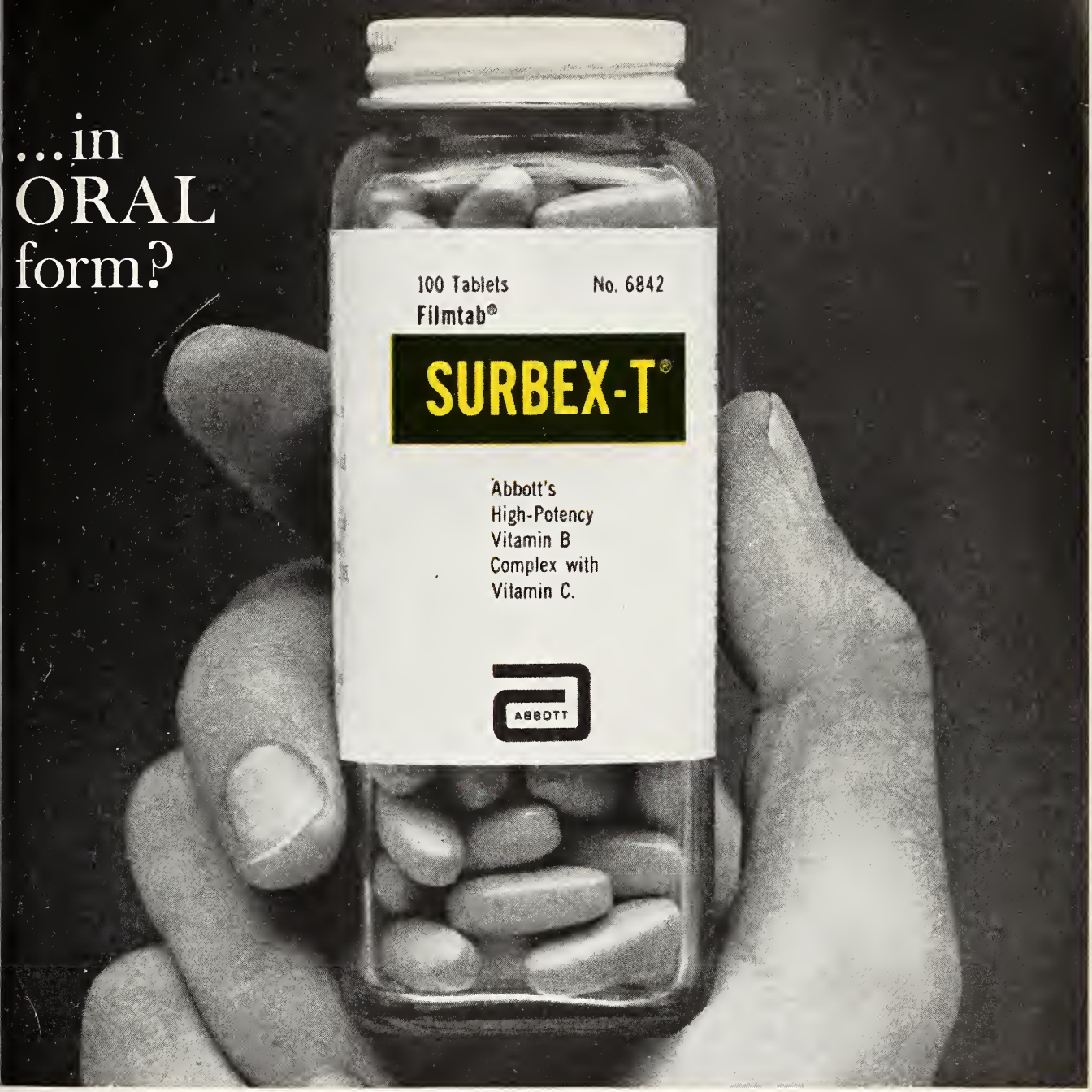
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BIBLIOGRAPHY

1. Brindle, M. J., Twyman, D. G.: Allergic Reactions to Tetanus Toxoid. *Brit. Med. J.* 5285, pp. 1116-1117.
2. Konttinen, A.: Cigarette Smoking and Serum Lipids in Young Men. *Brit. Med. J.* 5285, pp. 1115-1116.
3. Foster, J. B., Horn, D.B.: Multiple Sclerosis and Spinal-Fluid Gamma Globulin. *Brit. Med. J.* 5291, pp. 1527-1528. ◄



"She's starting to perk up, doctor . . . she's even putting lipstick on her bandages."



Patients receive replenishment in the easiest possible manner when the water soluble vitamins are depleted, or demands are increased.

Each Filmtab® Surbex-T represents:

Thiamine Mononitrate (B_1)	15 mg.
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Pyridoxine Hydrochloride	5 mg.
Cobalamin (Vitamin B_{12})	4 mcg.
Calcium Pantothenate (as calcium pantothenate racemic)	20 mg.
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...and when needs are more moderate, SUR-BEX® with C, Abbott's improved B-complex formula with 250 mg. of C.

ABBOTT

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Filmtab—Film-sealed tablets, Abbott: U.S. Pat. No. 2,881,085

Outpatient Mental Health Facilities In the State of Indiana: 1962

BERNARD LUBIN, Ph.D.[1]
WILLIAM P. FISHER, M.D.[2]
JOHN E. KOOIKER, M.D.[3]
Indiana University Medical Center

IN ORDER TO COMPILE current information about outpatient mental health facilities in the state of Indiana, a mail questionnaire was sent to all outpatient facilities in the state which were listed in the *Directory of Outpatient Psychiatric Clinics* (1959).[4] The questionnaire also requested respondents to list information concerning changes, omissions, and additions in the 1959 listing. All facilities that were contacted returned a questionnaire.

The listing, complete through March 15, 1962, is arranged in terms of location of the facility, and it utilizes the basic form of the directory. The following legend explains the order of information and the meaning of abbreviations.

> Name of facility. Address. Telephone number. Medical director or administrator. Area served. Age limits of clients served. Schedule of the facility. Number of full-time (FT) and part-time (PT) professional staff and trainees. Services to clients. Application procedure. Waiting period for intake interview and for treatment. Fees for services. (One asterisk (*) denotes that the facility is partially supported by the Indiana Department of Mental Health; two asterisks (**) denote that the facility is entirely supported by the Indiana Department of Mental Health.)

Information concerning the telephone number, application procedure, waiting period, and fees represent an addition to the data gathered by the directory. "Waiting period" refers to the current situation and, together with information about number of trainees, represents the least stable items of information.[5]

A special section at the end includes two lists of additional facilities in the state of Indiana. These offer primarily psychological testing, special education services, counseling services, or case work services. This section is also presented alphabetically by cities.

Bloomington

Psychological Clinic, Indiana University. Ed. 6-6811.

> Delton C. Beier, Ph.D. Serves university students and residents of Monroe and surrounding counties. Age limits, none. Daily including Saturday morning. Psychiatrist 1FT; clinical psychologists 7PT; psychiatric social worker 1FT; trainees, clinical psychologists 27. Services: diagnosis, psychotherapy, counseling, and guidance. Application procedure: telephone and in-person interview with psychiatric social worker. Waiting period: intake interview 2 weeks; treatment or counseling 3 to 6 weeks. Fees: for non-university patients only, intake interview $3.00; treatment interviews $1.00; psychological testing $10.00.

Continued

[1] Assistant Professor, Department of Psychiatry, Indiana University Medical School and Director of Psychological Services, Indiana State Department of Mental Health.

[2] Instructor, Department of Psychiatry, Indiana University Medical Center, and Associate Director of the Adult Psychiatry Clinic.

[3] Associate Professor, Department of Psychiatry, Indiana University Medical Center and Director of the Adult Psychiatry Clinic.

[4] We wish to thank Mr. Robert Spaulding of the Indiana Department of Mental Health for supplying additional information from which the mailing list was compiled.

[5] The authors welcome information concerning omissions and changes to be incorporated into future listings.

Logical support for the atherosclerosis diet

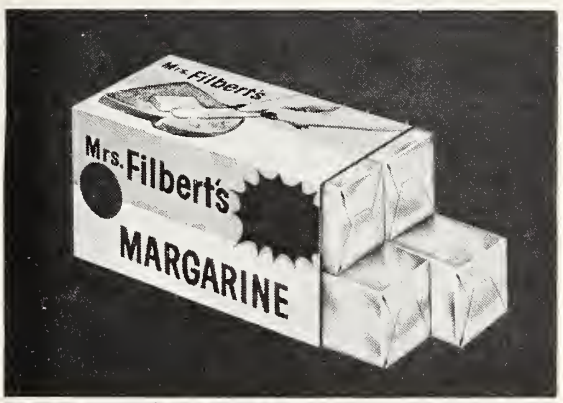
A recent report* in the *JAMA* on atherosclerosis states, "...it appears logical to attempt to reduce high concentrations of cholesterol and other serum lipids as an experimental therapeutic procedure."

Since this report recognizes table spreads as an important source of dietary fat, it is in your professional interest to know about the fatty acid composition of the margarines from Mrs. Filbert's.

Each of Mrs. Filbert's Margarines is over 80% unsaturated and offers unique properties useful in the control of serum lipids by dietary means.

Moreover, when you recommend any one of Mrs. Filbert's Margarines, your patient is assured of unmatched taste and flavor satisfaction—an important consideration in promoting adherence to any therapeutic regimen.

*AMA Council on Foods and Nutrition: The Regulation of Dietary Fat, *JAMA* 181: 411-423 (August 4, 1962).



Mrs. Filbert's Margarine is a popular, conventional-type margarine with no premium price. It is made from the finest domestic vegetable oils, which are partially hydrogenated for texture, but remain over 80% unsaturated. It has a ratio of polyunsaturates to saturates in excess of 1 to 1.



Mrs. Filbert's Whipped Margarine contains the same number of calories per pound as ordinary margarine, but contains 30% *fewer calories per pat* because it is whipped. When spread normally, it provides satisfaction with a reduction in fat calories. And its ratio of polyunsaturates to saturates exceeds 1 to 1.

If you would like information about Mrs. Filbert's family of margarines—including detailed listings of their component characteristics—please write to us.

J. H. FILBERT, Inc.

BALTIMORE 29, MARYLAND

Columbus

*Bartholomew County Mental Health and Guidance Center, 1541 Hutchins. 372-7877.

George C. Weinland, M.D. Serves Bartholomew County (patients accepted from other counties when openings occur). Age limits, none. Daily including Saturday morning. Psychiatrist 1FT; clinical psychologist 1FT; psychiatric social workers 2FT. Services: diagnosis, psychotherapy, counseling and guidance. Application procedure: referrals accepted directly from physicians, courts and some social agencies; other agencies refer through a physician. Waiting period: intake interview one week; treatment or counseling 8 weeks. Fees: sliding scale.

Elkhart

*Adult and Child Guidance Clinic of Elkhart County, Inc., (The Guidance Clinic). 224 W. High Street, Ja. 2-4522.

John U. Keating, M.D. Serves Elkhart County. Age limits, none. Daily except Saturday, including Tuesday and Wednesday evenings. Psychiatrist 1FT; clinical psychologist 1PT; psychiatric social workers 1FT; 1PT. Services: diagnosis, psychotherapy, counseling and guidance. Application procedure: direct application by patient or parent, medical clearance, school clearance if indicated. Waiting period: intake interview 6 weeks; treatment or counseling 9 months to 1 year. Fees: sliding scale.

Evansville

*Vanderburgh Child Guidance Center, Inc., 1 N. Barker. Ha. 4-8227.

Lillian Moulton, M.D. Serves Vanderburgh and surrounding counties. Age limits, maximum 18. Daily except Saturday. Psychiatrist 1FT; clinical psychologists 1FT, 1PT; psychiatric social workers 5FT; speech therapist 1PT; reading therapist 1PT. Services: diagnosis, psychotherapy, counseling and guidance. Application procedure: parent or legal guardian completes application form and has medical form completed. Waiting period: intake interview 6 weeks; treatment or counseling 8 weeks. Fees: sliding scale.

Fort Wayne

Adult Psychiatric Center of North East Indiana, Inc., 227 E. Washington Blvd., E-5471.

Byron Kilgore, M.D. Serves Allen, Adams, DeKalb, Huntington, Noble, Wells Counties. Age limits, minimum age 18. Psychiatrists 1FT; clinical psychologists 2FT; psychiatric social workers 5FT. Services: diagnosis, psychotherapy, counseling and guidance. Waiting period: intake interview 2 weeks; treatment or counseling 2 weeks. Fees: no information.

*Fort Wayne Child Guidance Center, Inc. 110 W. Washington Blvd. E-7563.

Robert L. Greenlee, M.D. Serves Allen County primarily (diagnostic service to adjoining counties). Age limits, maximum age 16. Daily except Saturday. Psychiatrist 1FT; clinical psychologists 4FT; psychiatric social workers 4FT. Services: diagnosis, psychotherapy, counseling and guidance. Application procedure: family or referral source requests intake appointment. Waiting period: intake interview 4 weeks; treatment or counseling one year (emergency cases seen sooner). Fees: sliding scale.

Gary

*Lake County Mental Health Clinic, 4801 W. 5th Avenue. 949-9031.

Jay L. Bisgyer, M.D. Serves Lake County. Age limits, serves primarily children, limited services to adults. Daily including evenings and Saturday morning. Psychiatrists 1FT, 4PT; clinical psychologists 3FT; psychiatric social workers 5FT. Services: diagnosis, psychotherapy, counseling and guidance. Application procedure: telephone call by referral source or patient. Waiting period: intake interview less than 5 days; treatment or counseling 26 weeks. Fees: sliding scale.

Continued



Put your low-back patient back on the payroll

Soma relieves stiffness —stops pain, too

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, fast!

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

Kestler reports in controlled study: *Average time for restoring patients to full activity: with Soma, 11.5 days; without Soma, 41 days.* (*J.A.M.A. Vol. 172, No. 18, April 30, 1960.*)

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets. **USUAL DOSAGE: 1 TABLET Q.I.D.**

The muscle relaxant with an independent pain-relieving action

SOMA®

(carisoprodol, Wallace)

Wallace Laboratories, Cranbury, New Jersey

MENTAL HEALTH

Continued

Gary

**North West Indiana Alcoholism Clinic, Division on Alcoholism, Department of Mental Health, 4938 W. 5th Ave. 949-4275.

Harry B. Norris, Administrative Director. Serves Northwest Indiana. Age limit, minimum 18. Daily except Saturday, including Tuesday evening. Psychiatric social worker 1FT; counselor 1FT; physician 1PT. Services: diagnosis, psychotherapy, counseling and guidance. Application procedure: self referrals and referral sources. Waiting period: intake interview none; treatment or counseling none. Fees: none.

Indianapolis

*James Whitcomb Riley Child Guidance Clinic, Indiana University Medical Center, third floor, Riley Hospital, 1100 W. Michigan St. Me. 5-8431, Ext. 533.

Edward A. Tyler, M.D. Serves state of Indiana. Age limit, maximum 16. Daily except Saturday. Psychiatrists 1FT, 1PT; clinical psychologists 2FT, 2PT; psychiatric social workers 3FT; trainees, psychiatrists 3, clinical psychologist 1, psychiatric social workers 2, medical students 3. Services: diagnosis, psychotherapy, counseling and guidance. Application procedure: patient must be technically physician referred, application form to be completed. Waiting period: from time of application, 78 weeks (approximately) to intake interview, diagnosis and treatment. Fees: $5.00 to $15.00 per week per family.

*Child Guidance Clinic of Marion County, Inc., 1949 E. 11th St. Me 2-5381.

Edward C. Shipley, M.D. Serves Marion and Boone Counties. Age limit, maximum 17. Daily except Saturday. Psychiatrists 1FT, 1PT; clinical psychologists 1FT, 2PT; psychiatric social workers 3FT, 2PT; psychiatric nurse 1PT; trainees, clinical psychologist 1; psychiatric social workers 2. Services: diagnosis, psychotherapy, counseling and guidance. Application procedure: letter or telephone call in which parent talks with social worker, an application form and a medical form to be completed. Waiting period: intake interview 4 weeks; treatment or counseling 8 weeks. Fees: sliding scale.

Adult Psychiatry Clinic, Indiana University Medical Center, 1100 W. Michigan St. Me. 5-8431, Ext. 2554.

John E. Kooiker, M.D. Serves state of Indiana. Age limit, minimum 16. Daily except Saturday. Psychiatrists 1FT, 1PT; clinical psychologists 2FT; supervising psychiatric social worker 1PT; trainees, psychiatrists 3, psychiatric social workers 3. Services: diagnosis, psychotherapy, counseling and guidance. Application procedure: self referrals or referral source, completion of application form. Waiting period: intake interview 4 weeks; treatment 10 weeks. Fees: intake interview $10.00, treatment interviews $5.00, psychological testing up to $25.00.

Epilepsy Clinic, Indiana University Medical Center, 1100 W. Michigan St. Me. 5-8431, Ext. 2247.

Philip T. White, M.D. Serves Indiana and bordering states. Age limits, none. Thursday morning and afternoon, excluding any fifth Thursday in a month. Clinical psychologist 1PT; neurologist 1FT, social worker 1FT; trainees, neurologist 1. Services: diagnosis, counseling and guidance. Waiting period: intake interview 4 to 6 weeks; treatment or counseling 4 to 6 weeks. Fees: $4.00 per visit (tests separate according to hospital fee schedule).

James Whitcomb Riley Memorial Clinic for Intellectually Handicapped Children. Riley Hospital, Indiana University Medical Center. Me. 5-8431.

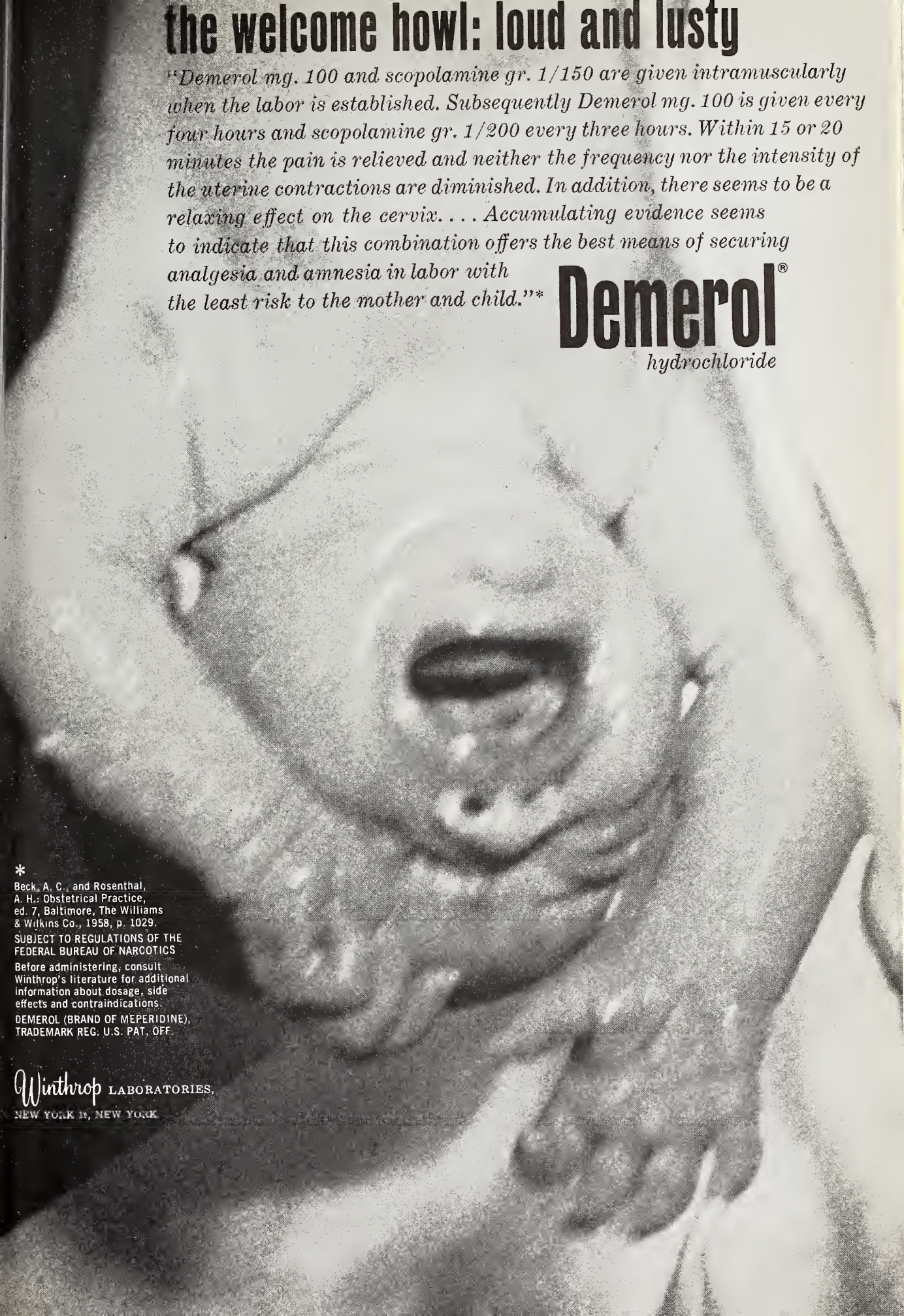
Arthur L. Drew, M.D. Serves primarily state of Indiana, some patients from Kentucky, Michigan, Illinois, and Ohio. Age limit, maximum 16. Wednesday afternoon, Thursday morning and afternoon, and Friday morning. Neurologists 2FT; clinical psychologists 2FT; social worker 1FT; nurse 1FT, occupational therapist 1FT. Services: diagnosis, counseling and guidance. Application procedure: medical referral. Waiting pe-

Continued

the welcome howl: loud and lusty

*"Demerol mg. 100 and scopolamine gr. 1/150 are given intramuscularly when the labor is established. Subsequently Demerol mg. 100 is given every four hours and scopolamine gr. 1/200 every three hours. Within 15 or 20 minutes the pain is relieved and neither the frequency nor the intensity of the uterine contractions are diminished. In addition, there seems to be a relaxing effect on the cervix. . . . Accumulating evidence seems to indicate that this combination offers the best means of securing analgesia and amnesia in labor with the least risk to the mother and child."**

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* Beck, A. C., and Rosenthal, A. H.: Obstetrical Practice, ed. 7, Baltimore, The Williams & Wilkins Co., 1958, p. 1029.

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Before administering, consult Winthrop's literature for additional information about dosage, side effects and contraindications.

DEMEROL (BRAND OF MEPERIDINE), TRADEMARK REG. U.S. PAT. OFF.

Winthrop LABORATORIES,
NEW YORK 18, NEW YORK

riod: examination 4 weeks; counseling none. Fees: diagnostic interview $6.00, treatment $4.00, psychological testing $4.00 to $15.00, collateral interviews $4.00, EEG up to $15.00.

Psychiatry Clinic, Marion County General Hospital, 960 Locke St. Me. 6-6331, Ext. 423.

Wesley A. Kissel, M.D. Serves Marion County. Age limit, minimum 16 years. Daily except Saturday. Psychiatrists 1FT, 1PT; clinical psychologist 1FT; psychiatric social workers 2FT, psychiatric nurses 2FT; trainees, psychiatrists 2, clinical psychologist 1. Services: diagnosis, psychotherapy, counseling and guidance. Application procedure: referral by physician. Waiting period: intake interview 1 day; treatment 1 week. Fees: sliding scale (no charge to maximum of $3.00 per visit).

Neurology Clinic, Marion County General Hospital, 960 Locke St. Me. 6-6331, Ext. 449.

Wesley A. Kissel, M.D. Serves Marion County. Age limits, none. Monday and Thursday afternoons. Neurologists (attending staff) 1-2PT; trainees, neurologists 2-3. Services: diagnosis, treatment. Application procedure: referral by physician. Waiting period: treatment 1 week. Fees: sliding scale (no charge to maximum of $3.00 per visit).

Mental Hygiene Clinic, Veterans Administration, 36 S. Pennsylvania St. Me. 5-7401.

R. Holzberg, M.D. Serves state of Indiana. Age limits, 18 to 75. Limited to veterans with service-connected disabilities. Daily except Saturday. Psychiatrist 1FT; clinical psychologist 1FT; psychiatric social worker 1FT; trainees, clinical psychologists 1FT, 2PT. Services: diagnosis, psychotherapy, counseling and guidance. Application procedure: Veterans with service-connected disabilities complete an Application for Outpatient Treatment, VA Form 10-2827. Waiting period: intake interview 2 weeks; treatment or counseling 3 to 4 weeks. Fees: none.

**Outpatient Division, Central Indiana Alcoholism Clinic, Bahr Treatment Center, Central State Hospital, 3000 W. Washington St. Me. 9-5304.

Charles H. Cronick, M.D. Serves Marion County and surrounding counties. Limited to patients with alcoholism and the families of these patients. Weekdays and Tuesday evening, excluding Saturday. Psychiatrist 1FT; clinical psychologist 1PT; psychiatric social workers 1FT, 2PT; internist 1PT. Services: diagnosis, psychotherapy, counseling and guidance. Application procedure: self referrals and referral from other social agencies. Waiting period: intake interview none; treatment or counseling none. Fees: none.

**Outpatient Clinic, Larue D. Carter Memorial Hospital, 1315 W. 10th St. Me. 4-8401.

Joseph A. FitzGerald, M.D. Serves state of Indiana. Age limits, minimum 4 years. Daily including Saturday morning. Psychiatrists 3PT; clinical psychologist 1FT; psychiatric social workers 1FT, 4PT; trainees, psychiatrist 1, clinical psychologists 4. Services: diagnosis, psychotherapy, counseling and guidance. Application procedure: telephone call or letter to clinic to schedule screening interview. Waiting period: intake interview within one week; treatment or counseling within one month. Fees: sliding scale, diagnostic (all inclusive, including E.E.G., lab. studies, and x-rays if needed) $4.00 to $20.00; treatment $1.00-$15.00.

Episcopal Community Services, 1559 Central Avenue. Me. 5-2538.

The Rev. Peter C. Moore, Executive Director. Serves Diocese of Indianapolis (that portion of the state lying south of the northern lines of Warren, Tippecanoe, Clinton, Tipton, Delaware, and Randolph Counties). Age limits, none. Tuesday evening (in addition, individuals may be seen during the day for clinic procedures by appointment). An additional evening is planned for the fall of 1962. Psychiatrist 1PT; clinical psychologists 2PT; psychiatric social workers 1FT, 1PT; priest. Services: diagnosis, counseling and guidance. Applica-

tion procedure: referrals accepted through the clergyman (rector or vicar) of the local Episcopal Parish ordinarily, but application may also be made directly to the executive director. Waiting period: no information. Fees: no information.

Kokomo

*Guidance Center of Howard County, Inc., 308 W. Taylor St. Gl. 2-5667.

John M. Hoyt, M.D. Serves Howard County and referrals from the Bunker Hill AFB Hospital Commander. Age limits, none. Daily including Saturday morning and afternoon and Monday and Tuesday evenings. Psychiatrist 1PT; clinical psychologists 2FT, 1PT; psychiatric social workers 1FT, 1PT. Services: diagnosis, psychotherapy, counseling and guidance. Application procedure: "All referrals must come through the family physician." Waiting period: intake interview 4 weeks; treatment or counseling 2 weeks. Fees: no information.

Lafayette

Purdue University Psychological Clinics, West Lafayette. 90, Ext. 2754.

John M. Hadley, Ph.D. Serves adults and college students associated with Purdue University, children from entire state but primarily the northern areas. Age limits, none. Daily including Saturday morning. Psychiatrists 2PT; clinical psychologists 12PT; trainees, clinical psychologists 20. Services: diagnosis, psychotherapy, counseling and guidance. Application procedure: call or write to the clinic director. Waiting period: intake interview 2 to 4 weeks; treatment or counseling usually none. Fees: none.

*Tippecanoe County Mental Health Center, 2316 South St. Sh. 2-4059.

Joe M. Martin, M.D. Serves Tippecanoe, Montgomery, Fountain, Warren, White, and Carroll Counties. Age limits, none. Daily except Saturday. Psychiatrist 1PT; clinical psychologist 1FT; psychiatric social workers 2FT, 1PT; trainees, clinical psychologists 3. Services: diagnosis, psychotherapy, counseling and guidance. Application procedure: referral source or patient calls for application. Waiting period: intake interview 2 to 3 weeks; treatment or counseling 4 to 8 weeks. Fees: sliding scale.

Marion

*Grant County Mental Health Clinic, 412 S. Boots St. No. 4-5347.

Newell T. Schmalzried, Ph.D., Administrator; Charman Palmer, M.D., Medical Director. Serves Grant County. Age limits, none. Daily including Saturday morning, and Monday, Tuesday, and Thursday evenings. Psychiatrist 1PT; clinical psychologists 1FT, 3PT; psychiatric social workers 1FT, 2PT. Services: diagnosis, psychotherapy, counseling and guidance. Application procedure: client phones clinic for application. Waiting period: intake interview none; treatment or counseling 8 weeks. Fees: sliding scale.

Michigan City

*Adult and Child Guidance Clinic for La Porte County, 701 Washington St. Tr. 4-6744.

John M. Hoyt, M.D. Serves LaPorte County. Age limits, none. Daily except Saturday, including Wednesday and Thursday evenings. Psychiatrist 1PT; clinical psychologist 1PT; psychiatric social workers 2FT. Services: diagnosis, treatment. Application procedure: self referrals and referral sources; patient must come with knowledge and approval of the family physician. Waiting period: intake interview 8 weeks; treatment 6 weeks. Fees: sliding scale.

Richmond

Child Guidance Clinic of Wayne County, 12 N. 10th St. 2-6139.

Fred Fragner, Administrative Director, Charman Palmer, M.D., Medical Director. Serves Wayne County. Age limits, no information. Daily including Saturday. Psychiatrists 2PT; clinical psychologists 2PT; psychiatric social worker 1FT. Services: diagnosis, psycho-

therapy, counseling and guidance. Application procedure: completion of application form by parent of patient. Waiting period: intake interview 2 to 3 weeks; treatment or counseling 2 to 3 weeks. Fees: no information.

South Bend

*St Joseph County Adult and Child Guidance Clinic, 527 W. Colfax. Ce. 3-5123.

A. H. Urruti, M.D. Serves St. Joseph County. Age limits, none. Daily including Saturday morning and Thursday evening. Psychiatrist 1FT; clinical psychologists 1FT, 2PT; psychiatric social workers 2FT, 1PT. Services: diagnosis, psychotherapy, counseling and guidance. Application procedure: adult patient or parent of child patient contacts clinic and completes application form. Waiting period: intake interview 2 to 3 months; treatment or counseling 6 months to 1 year. Fees: sliding scale.

Terre Haute

*Vigo County Adult and Child Guidance Clinic, 415 N. 9th St. Li. 6291.

Julia Thom, M.D. Serves Vigo County. Age limits, none. Daily except Saturday. Psychiatrist 1PT; clinical psychologist 1PT; psychiatric social workers 2FT. Services: diagnosis, psychotherapy. Application procedure: all referral sources. Waiting period: intake interview 3 weeks; treatment 1 to 4 weeks depending upon urgency of case. Fees: sliding scale.

Warsaw

*Four County Clinic, 526 Winona Avenue. 267-7074.

Frank D. Hogle, M.D. Serves Wabash, Marshall, Whitley, and Kosciusko Counties. Age limits, none. Daily, except Saturday. Psychiatrist 1PT; clinical psychologists 1FT, 1PT; psychiatric social worker 1FT. Services: diagnosis, psychotherapy, counseling and guidance. Application procedure: telephone call or letter from referral source or patient. Waiting period: intake interview 6 weeks; treatment or counseling 1 month. Fees: diagnostic study, $5.50 (average); treatment, $3.25 (average).

Additional Facilities in the State of Indiana

The following listings offer primarily psychological testing, special education services, and counseling services.

Evansville

Psycho-educational Clinic, Evansville College. Gr. 6-1341.

Gordon H. Rettke, Ph.D.

Indianapolis

Bureau of Research and Clinical Service, Butler University, 4600 Sunset Ave. At. 3-1343.

David P. Torbet, Ph.D.

Counseling Section for VR&E Division, Veterans Administration, 36 S. Penn. St. Me. 5-7401.

Noble C. Lehner.

Terre Haute

Special Education Clinic, Indiana State Teachers College. Terre Haute, Ind. Crawford 0231.

Rutherford B. Porter, Ph.D.

The following special agencies offer casework and counseling services to individuals or to families. Jewish Social Services of Indianapolis lists 1 part-time psychiatrist and 1 part-time clinical psychologist in addition to social workers. Family Service Association of Wayne County (Richmond) lists 1 part-time clinical psychologist in addition to social workers.

Anderson

Family Service Bureau, 331 Citizens Bank Building. 642-5114.

Don Maxtadt, Executive Director.

East Chicago

Catholic Charities. 720 W. Chicago Avenue. Ex. 7-5803.

Very Rev. Msg. W. E. Sweigart, Director.

Elkhart

Family Counseling Service of Elkhart County, 329 W. Franklin St. Ja. 3-4402.

Eugene Talsma, Executive Director.

Evansville

Catholic Charities. 602 Court Bldg. Ha. 3-5456.

Rev. Charles T. Schoettelkotte, Director.

Family and Children's Service, Inc. 313 S. E. Second St. Ha. 5-5181.

Fort Wayne

Catholic Social Service. 919 Fairfield Ave. Ea. 7311.

Very Rev. Msg. John H. Reed, Director.

Family and Children's Service of Ft. Wayne, 2424 Fairfield Ave. H-4326.

Gary

Catholic Social Service Bureau. 673 Broadway, Rm. 208. Tu. 3-9602.

Very Rev. Msg. W. E. Sweigart, Director.

Hammond

Catholic Charities and Social Service. 510 Calumet Bldg. We. 3-0696.

Very Rev. Msg. W. E. Sweigart, Director.

Indianapolis

Catholic Charities Bureau, 623 E. North St. Me. 8-1371.

Rev. Joseph V. Somes, Director.

Children's Bureau, 615 N. Alabama. Me. 4-6481.

James Mallon, Director.

Jewish Social Services, 615 N. Alabama. Me. 4-7401.

Jacob C. Guthartz, Executive Director.

The Family Service Association, 615 N. Alabama St., Rm. 210. Me. 4-6341.

Henry M. Graham, Executive Director.

Lafayette

Catholic Charities, 610 Lingle Ave. Sh. 2-0275.

Very Rev. Msg. Arthur A. Sego, Director.

Michigan City

Family Welfare Society, 703½ Franklin St. Triangle 9-9565.

Mishawaka

Family and Children's Center, 1411 Lincoln Way West. Blackburn 5-3115.

Robert E. Pollitt, Executive Director.

Muncie

Family Counseling Service, 615 E. Washington St. Atlas 4-7789.

Richard E. Huyck, Executive Director.

Richmond

Family Service Association of Wayne Co., Inc., 11½ N. 10th St. 2-3430, 2-6343.

Mrs. June B. Harris, Executive Director.

South Bend

Catholic Social Service, 207 S. Taylor St. At. 9-5506.

Very Rev. Msg. John H. Reed, Director.

Terre Haute

Family Service Association, 912 Chestnut St. Crawford 7381.

Keith H. Cook, Executive Secretary.

REFERENCE

Outpatient psychiatric clinics and other mental health resources in the United States; The National Association for Mental Health, Inc., and National Institute of Mental Health, 1959 ◄



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More detailed professional information available on request.

Boutonneuse fever is a tick-borne, acute, febrile disease often affecting children. The bite site becomes a small, necrotic ulcer. A striking macular or maculopapular eruption develops on the trunk, palms and soles. Onset is sudden, with chills, high fever, violent headache and lassitude. The high temperature—up to 103° F.—characteristic of both boutonneuse fever and bronchopneumonia, drops rapidly following initiation of Terramycin therapy.

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Commission on Drug Safety

THE PHARMACEUTICAL Manufacturers Association established its Commission on Drug Safety on July 28, 1962, to advance scientific knowledge of the predictability of action in human beings of new pharmaceuticals.

Lowell T. Coggeshall, M.D., a leading United States medical scientist and educator and vice-president of the University of Chicago, is chairman of this commission.

In accepting his appointment Dr. Coggeshall said: "The basic purpose of our commission is to study the broad and complex problems of making available to the public, with adequate safeguards for both the doctor and the patient, the therapeutic advances which will result from the enormous programs and rapid pace of medical research.

"It will become increasingly important to learn more about how to detect these biological effects in painstaking laboratory and animal research, before such new drugs are administered to humans. And careful attention must be devoted to early clinical trials in humans.

"I hope the commission will be able to develop broad guidelines for research and testing on the basis of the most advanced existing scientific knowledge. The commission also will attempt to outline areas of study for the future, to expand scientific understanding of biological phenomena hitherto unknown. It will not be our purpose to concern ourselves with any specific compound.

"We will undertake our deliberations with the full realization that the standards of the United States for quality, purity, and testing procedures are among the highest in the world. In this connection, we need not be reminded of the tremendous contribution of the Food and Drug Administration, the pharmaceutical industry, the medical schools, and the medical profession."

Dr. Coggeshall has been chairman of the Research and Development Committee for Medical Research for the Department of Defense and a special assistant to the Secretary of Health, Education and Welfare. He was special advisor to the military services during World War II and has received numerous awards for his contributions to medicine.

Under his direction an unprecedented expansion of the University of Chicago's medical education, hospital, clinical, and research activities has taken place. Dr. Coggeshall was first associated with the university when he began his internship thirty-four years ago. He became dean of the division of biological sciences in 1947 and the vice-president in 1960.

Other members of the Commission on Drug Safety are:

Paul R. Cannon, M.D., pathologist, former chairman of the department of pathology at the University of Chicago and professor of pathology at the university for 25 years. He is editor of the American Medical Association's *Archives of Pathology.*

Thomas Francis, Jr., M.D., professor of epidemiology and chairman of the department of epidemiology at the University of Michigan Medical School since 1941.

Philip S. Hench, M.D., Nobel prize-winning authority on arthritis and rheumatism. He has been associated with the Mayo Foundation and Graduate School of the University of Minnesota since 1921, as professor of medicine there since 1947.

Chester S. Keefer, M.D., former special assistant to the Secretary of Health, Education and Welfare, and a director of Boston

University-Massachusetts Memorial Hospitals Medical Center since 1959. He has been professor of medicine at the university since 1940.

Theodore G. Klumpp, M.D., former chief of the Drug Division, Food and Drug Administration, and instructor in internal medicine at Yale. He is president and director of Winthrop Laboratories, of New York City.

John T. Litchfield, M.D., specialist in pharmacology and drug safety evaluation and director of the Experimental Therapeutics Research Section of Lederle Laboratories, Pearl River, New York.

Maurice R. Nance, M.D., an internist with special training in pathology, the science of the origin, nature, and course of diseases. He is medical director of Smith, Kline & French Laboratories in Philadelphia.

Leonard A. Scheele, M.D., former career officer with the United States Public Health Service and Surgeon General from 1948 to 1956. He is senior vice-president of Warner-Lambert Pharmaceutical Company, Morris Plains, New Jersey.

Leon H. Schmidt, Ph.D., pharmacologist, research professor in biological chemistry at the University of Cincinnati College of Medicine since 1950 and consultant to the National Institutes of Health.

Austin Smith, M.D., former editor of the *Journal of the American Medical Association,* editor-in-chief of all AMA scientific publications, and executive editor of the *World Medical Journal.* He is president of the Pharmaceutical Manufacturers Association.

Thomas B. Turner, M.D., microbiologist, dean of the medical faculty of Johns Hopkins School of Medicine since 1957, an authority on spirochetal diseases and poliomyelitis.

Josef Warkany, M.D., pediatrician, noted for his research in endocrinology and prenatal deformities. He is a fellow of the Children's Hospital Research Foundation in Cincinnati. ◄

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Doctor Diplomats

More News from the Congo

THE TIME PASSES rapidly and this has been both a worthwhile and enjoyable three months which I have spent at Piper Memorial Hospital in Kapanga, Katanga, Africa. I arrived the first week in April by Mission plane from Ndola, Northern Rhodesia after jet flights from Indianapolis to New York, and from New York to London; then by British United Airway to Ndola, stopping at Entebbe, Uganda on the shore of Lake Victoria. I landed here at Kapanga in a severe thunderstorm. We were unable to see the field until we were one hundred feet from it and then saw that it was dotted with empty gasoline barrels put there by Katangese soldiers to prevent United Nations' planes from landing. Fortunately the pilot had previously experienced such situations and landed without incident in a sea of mud while dodging the "tukes" as the barrels are called.

The first two or three weeks after arriving I had some anxiety concerning my safety after hearing some of the stories about encounters with soldiers. The native population seemed anxious as well. Each time a plane flew over everyone would run outside to see if it were a United Nations' plane. This uneasiness has gradually subsided and there is no particular unrest now.

This Mission, founded in 1914, is isolated at the end of a rough dusty road 1000 kilometers from Elizabethville and about 75 kilometers from the Central Congo border where there was considerable military action between Katangese and Central Congolese troops in December, 1961. During the rainy season, which lasts nine months of the year, this station is isolated except by airplane because all the rivers flood, making the roads impassible. The winter, or dry season, starts abruptly about the first of May and the muddy roads promptly become ankle deep with red dust.

The 250 bed general hospital here is the only hospital in a 150 mile radius. A dispensary where 150 to 250 patients are seen daily adjoins the hospital. There also are six dispensaries in outlying villages and a leper colony is located about six miles from Kapanga at Kabaji.

The greatest part of the medical work is done by Infirmiers who are trained African nurses and the Mission doctor, Glen Eschtruth and myself see the more serious patients and Glen operates each morning. I give the anesthetics, most of which are spinals. This gives me an opportunity to see patients between anesthetics. We make complete rounds seeing all in-patients at least once per week. As you might guess we cannot spend much time with each patient.

The hospital is unusually well equipped for a bush hospital. We have Picker x-ray equipment and do some fluoroscopy. The electrocardiograph is a British make and functions quite well. Routine tests done by the laboratory are hemoglobins, malaria smears and stools for parasites. Occasional urinalyses are done. I have helped the laboratory technician, an African with no special training except the regular nurses training, run some tests with the Leitz photometer which had not been used previously. We are now working with blood typing. Transfusions have not previously been

EDITOR'S NOTE: Dr. Pickett has now resumed his practice in Indianapolis.



Spinal anesthesia is used for most surgical procedures.

available and this almost cost the life of a woman with placenta praevia recently. We were thankful we had some Red Cross plasma.

One surgery is fully equipped and a second one partially so. Glen has done two bowel resections, several subtotal thyroidectomies as well as many hernias, hydroceles and hysterectomies for fibroids. He has operated over 250 major cases in the past year. There is a well trained staff of African surgical assistants who scrub with him.

Most patients are malnourished and anemic and malaria and intestinal parasites are universally present. We see many infections due to poor living conditions and tuberculosis is prevalent. Since there is an army camp nearby we have been seeing more gonorrhea, this not being a common disease in this part of Africa. Cardiovascular and renal disease as well as gallbladder and stomach disease are almost non-existent. There has been only one case of appendicitis seen here in over a year.

The families come to the hospital with the patients and stay to prepare food in cook shacks behind the hospital. They also help care for the patients and sleep in bed with the patients or on the floor so it is hazardous to make rounds at night for fear of stepping on people in the dark. It is not unusual to find the relatives in the bed and the patient on the floor.

Goats, pigs and chickens are common on the hospital grounds and not infrequently the goats come into the hospital. I have not as yet seen any of these animals in surgery but I have heard that it has happened. Bats are found in the attics in great numbers and one morning when we made rounds we found that the ceiling in one of the pediatric wards had fallen in the night from the weight of the guano. We checked the other attics and found it piled eighteen inches deep in some areas.

The Africans are given as much responsibility in the care of patients as they can carry, however, constant supervision is needed. They do much more of the administration now than they did before independence was declared in July, 1960.

The village of Masumba nearby is the home of the Paramount Chief of the Luunda tribe, which is one of the largest tribes in the Congo. Thus, Masumba is the center of many activities. The Chief is the Mwanta Jav and he spent one week in Indiana when he visited America in 1960. He has always



Fracture of mid-thigh and severe laceration of lower leg sustained in fall from bicycle; fracture treated with traction.



Giving advice concerning the care of a new member of the family.

been quite friendly toward the Mission and its activities. I have had the opportunity to attend many interesting local events and to meet many of the African officials both locally and nationally. President Tshombi came for a visit and I had the pleasure of meeting and eating breakfast with him. He was both surprised and pleased to know that we had come to help them in view of the United States stand in the United Nations. I assured him that not all Americans agreed with this action.

The Mission here has an agriculturist who has an extensive program with cattle, sheep,

chickens, ducks and rabbits as well as a nursery where he is growing all types of citrus fruits and garden vegetables. Great quantities of papaya, mangoes, bananas and pineapple as well as all the citrus fruits have been introduced by the missionaries. Africans are being trained to raise and care for the animals and nursery. They then go out in the villages to teach others.

There is also a linguist who is developing an adult literary program. His name is Loren Nussbaum and he was born near Berne, Indiana. He took some of his graduate work at Indiana University. Thus as you can see the Mission has a well rounded program. The missionary wives teach classes in home economics for the African women who have been quite slow to accept education and change. They have long been treated as servants doing most of the work as well as providing the food and raising children.

The Congolese people are quite eager to be independent but have little concept of the responsibility and effort that this entails. Much progress has been made in the last fifty years since the missionaries first arrived and if the political situation can be controlled internally with the least possible outside interference, peaceful independence will eventually be attained. Much foreign aid to education as well as economic and technical assistance will be needed however, since there are few institutions here at present to provide these services.

The need for trained medical personnel is quite evident and it will take several years to provide them from the Congolese population. Consequently, for the time being these people will necessarily come from foreign countries. It seems to me that this is an excellent opportunity for Americans as private citizens to help our foreign aid program. If this can be done by private citizens it is more acceptable to the native people because they do not feel that there are strings attached as they do when it comes from our government.

Also we as Americans can feel certain that the aid is going to those who need it and that someone is not taking advantage of our generosity for their own profit. Recently one of the missionaries who had been without flour for several weeks found some at one of the local commissaries. He paid fourteen dollars for the one hundred pounds of flour and when he brought it home we noted the printing on the sack. It said "Donated by the People of the United States of America, Not to be Sold". There are many stories concerning this sort of thing on a large scale in many areas of the world.

I will be looking forward to returning to Indianapolis in July but feel that this has been a most rewarding three months. ◄

Sincerely,

Robert D. Pickett, M.D.

Welfare Medical Assistance to Disabled Persons Will Become Effective Next January

FOR THE PAST two decades, the Indiana State Medical Association, county medical societies, and practicing physicians throughout the state have maintained a very important position in the administration of medical assistance plans under the public assistance programs as administered by the public welfare departments.

This position will become of even greater importance with the advent of the newest public assistance program — assistance to the disabled—which goes into effect January 1, 1963. This program was enacted by the 1961 General Assembly through an amendment to the welfare act and provides financial assistance up to a maximum of $70.00 a month in addition to the necessary medical services to needy disabled persons who meet certain eligibility requirements.

Persons qualifying for assistance under this program must be in need, must be 18 years of age, must have resided in Indiana five out of the last nine years, must not be residing in a public institution with the exception of an approved county home, and must not have assigned or transferred property within five years immediately prior to the date of application for assistance.

In addition to the foregoing eligibility requirements, the one of major importance, and the one which differentiates the new program from the presently existing old age assistance, blind assistance and assistance to dependent children programs, is the establishment of the disability factors of persons applying for assistance. The basis for the establishment of disability is found in section 82a of the welfare act, which states:

"Sec. 82a. Eligibility for Assistance. Assistance shall be given under the provisions of this act to any needy disabled person hereinafter referred to as 'disabled person' who:

"(a) Is permanently incapacitated by reason of a major defect or infirmity of mind or body, whether congenital or acquired by accident, injury or disease, and who is bedfast or requires the help of another person to care for him; . . ."

Other sections of the act require that an applicant for assistance shall be examined by a physician possessing an unlimited license to practice medicine in this state. The examining physician shall certify in writing, upon forms prescribed by the state department of public welfare, as to the diagnosis, prognosis and treatability of the disabling condition and shall also make a statement that the applicant is or is not totally disabled. The medical report of the examining physician, together with the report of social information as prepared by the county department of public welfare, shall be submitted to the state department of public welfare and shall be subject to review and determination of eligibility, as to permanent and total disability, by the state supervising physician and other qualified representatives of the state department.

Preliminary study of the examination procedures indicated that the type and contents of the medical examination report form was of basic importance. With this in view, the State Medical Association through its executive secretary, made a medical advisory committee available to the state department. This advisory committee consists of Doctors Charles R. Alvey, Muncie; Edward J. Dierolf, Gary; Herman J. Echsner, Columbus; Robert E. Williams, Lafayette, and Arvine G. Popplewell, Indianapolis.

A meeting to review a preliminary rough draft of the examination report form was held on August 6, 1962, and members of the Medical Advisory Committee of the Indiana

Continued

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Bright red, pleasant tasting, raspberry flavored syrup

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State Medical Association met with representatives of the state department and made many sound suggestions and constructive criticisms concerning the form and its contents. The suggested changes were incorporated and revised copies of the form were resubmitted to the committee members for their individual review and further suggestions to make the form satisfactory for use by both the local examining physicians and the state supervising physician.

This type of cooperation and working relationship is indicative of the kind that *must* be developed mutually between local medical societies, county departments of public welfare, the state medical association and the state department of public welfare if Indiana is to have a sound program of financial assistance accompanied by necessary medical services available to disabled persons.

A program with a good administrative structure and sound medical base is one in which each of us may express a great degree of pride with the complete knowledge that it will be well received by the citizens of Indiana and will be of genuine value to those persons requiring the benefits of such a program. ◄

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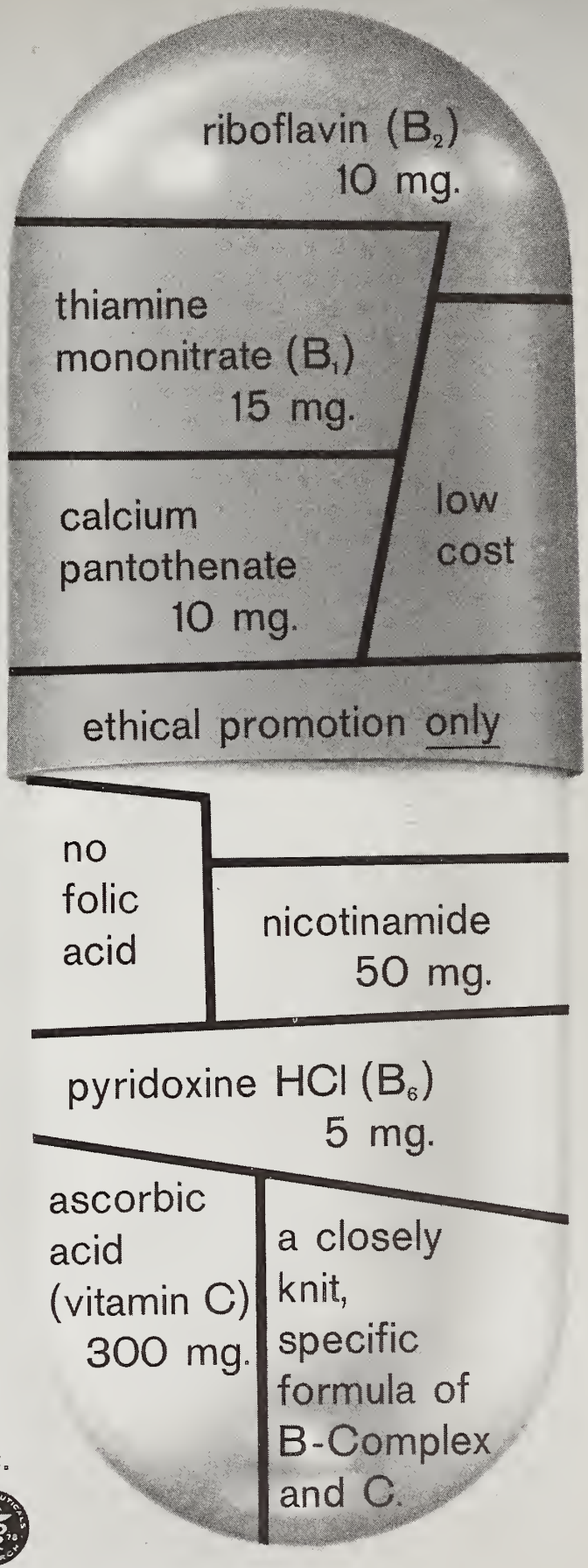
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Medicine At Law

DECISIONS AND OPINIONS

Highlights of recent court actions pertaining to health and medicine from *The Citation* prepared by the Law Division of AMA.

Ban on X-Rays by Chiropractors in New York Upheld—A regulation of the Public Health Council which restricts the use of x-rays on human beings in such a manner as to prohibit their use by chiropractors has been upheld by an intermediate appellate court in New York. Dismissal of a suit which sought to have the regulation declared unconstitutional was affirmed.

The appellate court held that there was no unconstitutional delegation of legislative power merely because the regulation permitted use of x-rays by unlicensed persons if directed or ordered by a licensed physician, dentist, podiatrist, or osteopath. It said that this does not confer upon members of such licensed professions power to create a class of authorized operators or technicians, but merely provides for professional direction and control over the use of x-rays. The court also held that the regulation was not discriminatory against chiropractors or a denial of equal protection of the law or of due process.

The court said that the technical education, training and skill of chiropractors are, in general, substantially deficient in the medical knowledge and diagnostic skill essential to evaluate the necessity of x-ray procedures in any particular case and to weigh the attendant risk as against the possible benefit to be derived. It also said that it was doubtful whether technical knowledge in the requisite degree, if possessed by a chiropractor, could be applied to the problem posed by a spinal x-ray without thereby constituting an unlawful invasion of the field of medical practice. The court, therefore, held that the exclusion of chiropractors from the class authorized to apply, direct, or order x-ray treatment was not arbitrary.

Chiropractic Association of New York, Inc. v. Hilleboe, 228 N.Y.S. 2d 358 (N.Y., May 4, 1962).

Application of Res Ipsa Doctrine Denied in California Suit—Where a vesicovaginal fistula developed after a hysterectomy, the California Supreme Court held that the doctrine of res ipsa loquitur was inapplicable. This doctrine permits an inference of negligence without direct evidence where it is a matter of common knowledge that an injury would not ordinarily occur in the absence of negligence.

The court enumerated many possible causes of a fistula of this nature which would not involve negligence. It also said that there was no evidence that the fistula was caused by a suture from the vault of the vagina through the full thickness of the wall of the bladder, which might have indicated negligence. Since a suture through the "flap of the bladder" could not have caused the fistula, the court held that an alleged admission of negligence by the surgeon in this respect was held to be no evidence of negligence. It also said that testimony by the gynecologist that a fistula does not follow a hysterectomy most of the time if the degree of skill and care ordinarily

Continued



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1. Borota, A., and Grinell, R.N.: J. Amer. Geriatrics Soc., 10:413, 1962.
2. Spoor, H. J.: N.Y. State J.M. 58:3292, 1958.
3. Lubowe, I. I.: Western Med. 1:45, 1960.
4. Weissberg, G.: Clin. Med. 7:1161, 1960.

exercised by a reputable gynecologist is exercised, was not sufficient to require application of the doctrine. The court, in concluding, said:

"To permit an inference of negligence under the doctrine of res ipsa loquitur solely because an uncommon complication develops would place too great a burden upon the medical profession and might result in an undesirable limitation on the use of operations or new procedures involving an inherent risk of injury even when due care is used. Where risks are inherent in an operation and an injury of a type which is rare does occur, the doctrine should not be applicable unless it can be said that, in the light of past experience, such an occurrence is more likely the result of negligence than some cause for which the defendant is not responsible."

Siverson v. Weber, 372 P. 2d 97 (Cal., June 7, 1962).

Citation Editor's Note: This decision appears to indicate a swing away from the extreme interpretation of the doctrine of res ipsa loquitur which has appeared in earlier California decisions.

Separation of Abdominal Incision Not Matter of Res Ipsa Loquitur—The opening of an abdominal incision eight days after an operation while the patient was seated on a commode attempting to have a bowel movement did not constitute a situation permitting application of the doctrine of res ipsa loquitur, under which negligence may be inferred from the unfortunate occurrence, even though a scultetus binder was not kept around the patient's abdomen. The refusal of a trial court to instruct the jury on that doctrine under these circumstances was upheld by an intermediate appellate court in California.

The doctrine is applicable, the appellate court said, only if it is a matter of common knowledge among laymen or medical men that the injury ordinarily or probably would not have occurred without negligence. It noted that the medical testimony showed that separation of the incision might occur without any negligence and that the use of the scultetus belt would not prevent the separation.

Although the application of the doctrine on the basis of the common knowledge of laymen must be left to the jury if the evidence is such that reasonable men might differ in opinion, there was no basis for the jury to find as a matter of common knowledge among laymen that the separation of an incision required for the resection of the sigmoid colon would not have occurred in the absence of negligence, the appellate court said. It noted that the likelihood of separation would depend upon the length and location of the incision, the health and obesity of the patient, the length of healing time, and the stress placed upon the sutures. It also noted that the patient had contended, in order to avoid the statute of limitations, that the cause of his injury was not apparent to him until some time after his recovery when he heard the matter discussed by other doctors. Accordingly, judgment for the surgeon and the hospital where the operation was performed was affirmed.

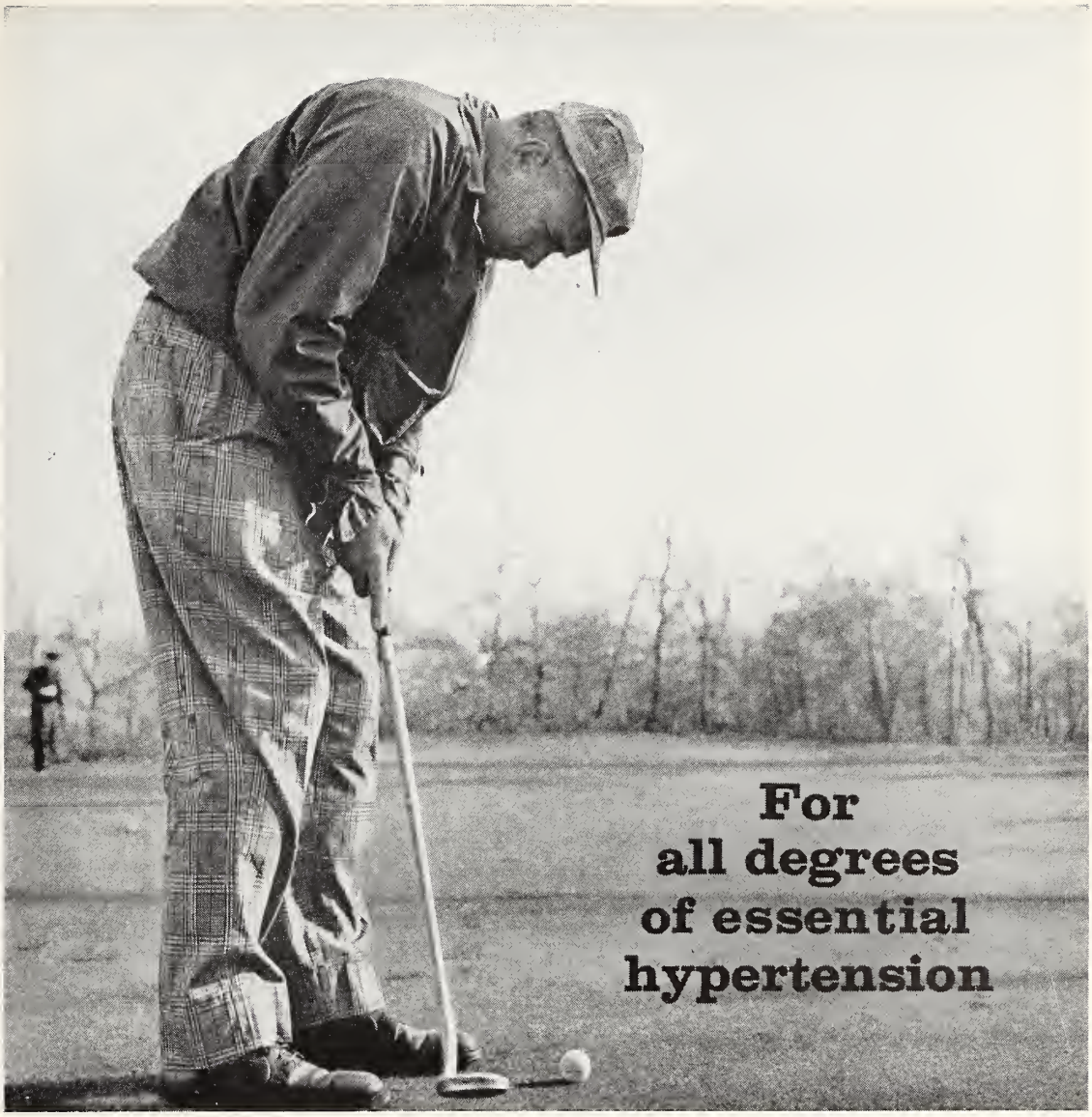
Jamison v. Debenham, 21 Cal. Rptr. 848 (Cal., May 21, 1962).

Kentucky Chiropractor Denied Reciprocal License in Indiana—A chiropractor previously licensed in Kentucky was denied a reciprocal license in Indiana because the requirements for a license in Kentucky were not substantially equivalent to those in Indiana. Denial of the license by the Board of Medical Registration and Examination was affirmed by the Indiana Supreme Court.

The Kentucky law required attendance of at least 4,000 45-minute hours at a chiropractic school. The Indiana law required 4,000 hours of resident attendance at a chiropractic school. Although the Indiana law did not define "hours," the court held that 60-minute hours were intended. Accordingly, it ruled that the requirements of the two states were not substantially equivalent.

The applicant had a transcript of credits

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†Hutchison J. C.: Current Therap. Res. *2*:487 (Oct.) 1960.

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MEDICINE AT LAW

Continued

from the O'Neill College of Chiropractic in Fort Wayne, Indiana, showing 3,200 60-minute hours. This was sufficient for the requirements of the Kentucky law but not for those of the Indiana law.

Sutto v. Board of Medical Registration and Examination of Indiana, 180 N.E. 2d 533 (Ind., March 5, 1962).

Negligence Not Inferable From Injurious Infusion of Drug—Extensive sloughing and scarring of tissue as a result of the infusion of the drug Levophed into the tissues surrounding a woman patient's veins did not permit an inference of professional negligence under the doctrine of res ipsa loquitur, an intermediate appellate court in New Jersey ruled. It held that the doctrine was inapplicable since it was not a matter of common knowledge that such injury would not occur in the absence of negligence.

The patient went into shock with complete failure of peripheral circulation after an operation for the closure of a ruptured gastric ulcer. In addition to various stimulating drugs, she was administered Levophed intravenously. The Levophed was discontinued when its infiltration into the tissue was discovered. Use of the drug saved the patient's life, but left her permanently scarred. Since there was no medical testimony tending to show that the treatment received was not in accord with good medical practice and since the doctrine of res ipsa loquitur, which permits an inference of negligence from circumstantial evidence, was not applicable, judgment in favor of the city hospital where the operation was performed was affirmed.

Renrick v. City of Newark, 181 A. 2d 25 (N.J., May 9, 1962). ◄

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James W. Carr Retires from Riley Memorial Association

James W. Carr, executive secretary of the Riley Memorial Association, retired last month after being active with the association for 41 years.

Carr's successor will be John W. Hillman, who joined the Riley staff February 12 as associate secretary. Carr will remain as consultant to the association, which administers gifts and bequests to Riley Hospital and maintains the Riley home at 528 Lockerbie.

Flying Physicians Association Elects Dr. Dan Urschel to Post

Dr. Dan Urschel, Mentone, Ind., has been chosen president-elect of the Flying Physicians Association, Inc., for the coming year.

Dr. Urschel is a past president of the Indiana chapter and is presently secretary of the state group. He has been active in aviation medical studies for a number of years and is presently a member of the Indiana State Aviation Advisory Council and of the Aerospace Medical Association.

Council to Improve Health Care of the Aged Lists Objectives

Dr. Frederick C. Swartz, a practicing internist of Lansing, Michigan, was elected chairman of the Joint Council to Improve the Health Care of the Aged, at its recent National Conference in Chicago. The council was formed in 1958 under the sponsorship of the American Dental Association, the American Hospital Association, the American Medical Association and the American Nursing Home Association.

Current objectives of the council are to:

1. Identify and analyze the health needs of the aged.

2. Appraise available health resources of the aged.

3. Foster effective methods for payment for health care of the aged.

4. Develop community programs to foster the best possible health care.

5. Promote health education programs.

6. Inform the public of the facts related to health care of the aged.

The council will hold its Third National Conference in San Francisco in May, 1963.

Four New Faculty Members Named to I.U. School of Medicine

The naming of four new faculty members in the Indiana University School of Medicine has been announced by I. U. President Elvis J. Stahr jr., as having been approved by the university's board of trustees.

William M. Armstrong, who was born and educated in Ireland and has been a research associate at the University of Rochester, has been appointed associate professor of physiology.

Three assistant professors joining the faculty are Dr. Francis L. Abel in physiology who was a research instructor at the University of Washington, Seattle; Rainer

Fried, in surgery-biochemistry, who for the past year has been a research associate at the I. U. Medical Center, and Hanus Jiri Grosz, in psychiatry, who currently is registrar at Maudsley Hospital in London, England. The latter was on the I. U. Medical Center staff in 1956-58.

Senator Hubert Humphrey Presented Knudson Award

Senator Hubert H. Humphrey (D-Minn.) has been given the Dr. A. B. C. Knudson award for his contributions to physical medicine and rehabilitation.

The award, named in honor of Dr. Knudson, director of the Veterans Administration physical medicine and rehabilitation service, was presented by Dr. Saul Machover of Buffalo, representing the Tri-Scientific and Clinical Conference Body.

W. B. SAUNDERS COMPANY features the following recent books in their full page advertisement appearing elsewhere in this issue:

PARSONS and SOMMERS—*GYNECOLOGY*

A useful new guide to management of gynecologic disease — parallels the growth and aging patterns of women covering the disorders accompanying each stage of the life cycle.

DAVIDSOHN and WELLS — Todd-Sanford *CLINICAL DIAGNOSIS by LABORATORY METHODS*

Explicit guidance on how to perform every possible clinical test—what to do, when and how to do it, and how to interpret your results.

WOLFF—*ELECTROCARDIOGRAPHY*

Help in understanding and evaluating electrocardiograms in terms of clinical medicine—without relying on memorization of examples.

The three rehabilitation associations that comprise the group are the Association for Physical and Mental Rehabilitation, Inc.; Association of Medical Rehabilitation Directors and Coordinators, Inc., and the American Association of Rehabilitation Therapy, Inc.

Chest Physicians Issue Statement on Cigarette Smoking

The Committee on Cancer of the American College of Chest Physicians for a number of years has been studying the effect of cigarette smoking on the pulmonary and cardiovascular systems. The members of the board of regents of the college are convinced that sufficient evidence has been accumulated to warrant issuing an official statement with regard to cigarette smoking and health. Accordingly, a resolution connecting cigarette smoking with various pulmonary and cardiovascular conditions was approved by the board and issued by the college.

The resolution stated that the weight of scientific evidence distinctly indicates that cigarette smoking and the inhalation of other atmospheric pollutants have an association relationship which strongly suggests a causal connection with chronic bronchitis, pulmonary emphysema, cor pulmonale, cardiovascular diseases and cancer of the lung.

The college in its official statement urged its members and the medical profession in general to intensify their educational campaign directed toward the public, and the youth in particular, relative to the hazards of smoking.

The college urges that efforts to control atmospheric pollution be encouraged and that support be given to endeavors in the field of research for additional scientific information concerning other etiologic agents. ◄

FUTURE MEETINGS, SEMINARS, COURSES

I. U. Postgraduate Course on "The Sick and Injured" Cancelled

The postgraduate course, "Immediate Treatment for the Sick and Injured," which had been scheduled for presentation Nov. 7-8 by the Postgraduate Medical Education Division of the Indiana University School of Medicine, has been postponed to avoid conflict with another similar program.

Annual Gastroenterology Postgraduate Course Offered

The annual postgraduate course in gastroenterology by the American College of Gastroenterology will be conducted at the Morrison Hotel in Chicago on November 1, 2, and 3, under Dr. Owen H. Wangensteen and Dr. I. Snapper as co-ordinators. The fee for non-members is $50. Those interested may write to the College at 33 W. 60th St., New York 23.

Eighth Hahnemann Symposium To Explore The Surgical Patient

A symposium on "Medical Considerations in the Surgical Patient" will be conducted by Hahnemann Medical College at the Sheraton Hotel in Philadelphia on December 12 to 14, 1962. This is the eighth Hahnemann Symposium. It will consider the major medical problems which the physician encounters in the surgical patient. Further information may be obtained by writing Wilbur W. Oaks, M.D., 230 N. Broad Street, Philadelphia 2.

College of Chest Physicians Interim Session in November

The American College of Chest Physicians will hold its annual interim session at the Ambassador Hotel in Los Angeles on November 24 and 25, just prior to the AMA Clinical Meeting. There will be panel discussions, round table luncheon discussions and formal papers on both days. Saturday evening the popular Fireside Conferences will be conducted in sixteen groups. A detailed program may be obtained by writing to the college at 112 E. Chestnut St., Chicago 11.

Indiana Doctor to Speak Before American Fracture Association

The American Fracture Association will hold its 23rd annual meeting October 21-25 at the Huntington Sheraton Hotel in Pasadena, Calif.

C. Philip Fox, M.D., of Washington, Ind., will be one of the principal speakers. His topic will be "X-ray Forum: Presentation of the Management of Difficult and Interesting Cases."

The post grad course is acceptable for Category II credit by the American Academy of General Practice.

Business Aspects of Medical Practice to be Discussed

The business aspects and other non-clinical aspects of medical practice will be discussed and explained at a two-day meeting conducted by the National Committee on Medical Practice Management at the Flamingo Hotel in Las Vegas on November 1 and 2. Experts on practice management, selecting and training assistants, employee relations, financial records, insurance, office arrangement, wills, partnerships and investments will present discussions and exhibits. Other details may be obtained by addressing the committee at 6043 Hollywood Blvd., Los Angeles, 28.

N. Y. Academy of Sciences Offers Conference in November

"Fetal and Infant Liver Function and Structure" will be the subject of a four-day conference to be conducted by the New York Academy of Sciences at the Henry Hudson Hotel in New York City, November 7 to 10. Invitations may be obtained by writing Mrs. E. T. Minor, 2 E. 63rd St., New York, 21.

Continued

Chicago Diabetes Association Symposium Will Be November 9

The Diabetes Association of Greater Chicago will conduct its sixth annual symposium on diabetes at the Offield Auditorium, Passavant Memorial Hospital, 303 East Superior St., on Friday, November 9, beginning at 9 o'clock.

There will be a round table discussion at the luncheon recess at Abbott Hall, led by various speakers on the program.

Registration is free for members of the Diabetes Association of Greater Chicago and for medical students and resident house staff members. The fee for non-members is $25.00.

This symposium is acceptable for 8 hours of Category II credit by the American Academy of General Practice.

Role of Non-University Hospital to be Topic of Teaching Seminar

A teaching seminar on "Graduate Medical Education—The Role of the Non-University Hospital" will be held at Michael Reese Hospital and Medical Center, Chicago, on November 7.

Sponsored by a grant from the Merck Sharp and Dohme post-graduate program, the all-day seminar is open to interested physicians, medical educators, hospital administrators, house officers and medical students. Among the topics to be discussed are the present and future status of the internship, medical education on private services, and the meaning of accreditation.

For details write Dr. Morton C. Creditor, director of medical education, Michael Reese Hospital, 29th St. and Ellis Ave., Chicago 16.

A Crack in The Socialist Illusion

The training for medicine is one of the longest and most arduous of any career. To go through it a young man must be moved by many motives. But those would surely include a desire to make a good living, to enter a profession where he could be his own master and not a hired employee, to have the self-satisfaction of being respected by his community as "the doctor" has ever been. And not the least of the motives is a desire to give to the sick person who comes to him the best care he can provide.

British socialized medicine has taken away every one of those motives, without exception.—Reprinted from *The Wall Street Journal*, Apr. 16, 1962.

Part I Ob-Gyn Board Exam Set for December

The next scheduled Part I (written) examination of this Board will be held at various examining centers in the United States, Canada and also military centers outside the continental United States, on Friday, December 14, 1962.

Current bulletins may be obtained by writing to Robert L. Faulkner, M.D., Executive Secretary and Treasurer, 2105 Adelbert Rd., Cleveland 6, Ohio.

Diplomates of this board are urged to notify the office of the executive secretary and treasurer of a change in address.

Laryngology, Bronchoesophagology Course Offered March 18-30, 1963

The Department of Otolaryngology, University of Illinois College of Medicine, will conduct a postgraduate course in Laryngology and Bronchoesophagology from March 18 to 30, 1963, under the direction of Paul H. Holinger, M.D.

Registration will be limited to 15 physicians who will receive instruction by means of animal demonstrations and practice in bronchoscopy and esophagoscopy, diagnostic and surgical clinics, as well as didactic lectures.

Interested registrants write directly to the Department of Otolaryngology, University of Illinois College of Medicine, 1853 W. Polk St., Chicago 12, Ill. ◄

County News

Allen

The Allen County Medical Society met September 4 in Ft. Wayne. John V. Thompson, M.D., spoke on "Pectus Deformities of the Chest Wall."

There were 75 members and guests present.

Clay

The Clay County Medical Society met August 7 at the Clay County Hospital.

There were eight members and two visitors present.

Jefferson-Switzerland

The Jefferson-Switzerland County Medical Society held a special meeting August 21 to discuss an oral polio program in their area.

The society also met September 4 at Madison State Hospital. There were 21 members present.

Wayne-Union

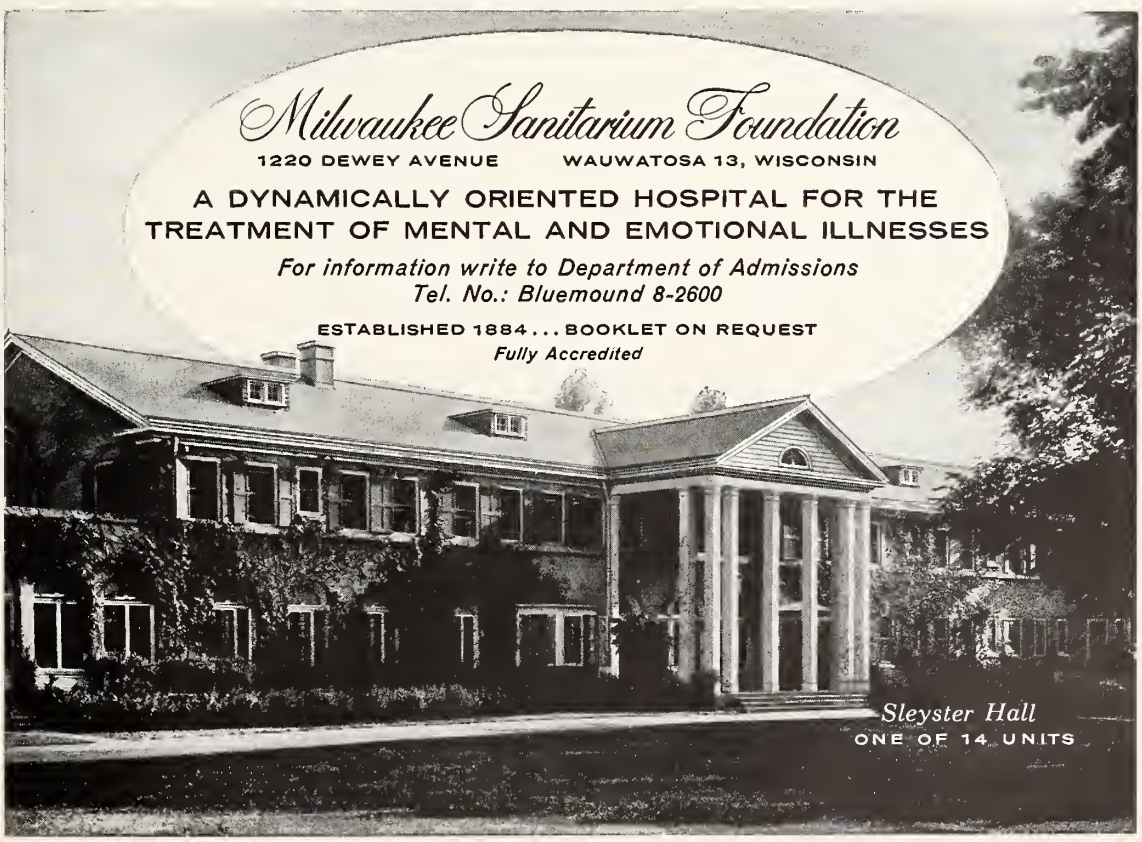
The Wayne-Union County Medical Society met Sept. 11 in Reid Memorial Hospital for a business meeting. There were 38 members present.

Whitley

Dr. Linus J. Minick spoke before 14 members of the Whitley County Medical Society meeting Sept. 11. The meeting was held at the Whitley County Hospital.

Shortly after the birth of their second child, the father took his six-year-old son to visit his new baby brother. The youngster gazed for several minutes at the baby's red, scowling face and wrinkled little hands and turned away.

"Well, son," asked his father, "what do you think of him?" "At least," replied the youngster, "I can understand why Mother hid him under her coat for so long!"



Deaths

John E. Freed, M.D.

Dr. John E. Freed, 74, Terre Haute general practitioner, died August 2 at his residence.

Dr. Freed had practiced medicine until about 18 months ago, when he went into semi-retirement because of ill health. He was a senior member of ISMA.

Bernard P. Gill, M.D.

Dr. Bernard P. Gill, 69, passed away July 30 at his home in Chandler, Ind.

Dr. Gill went to Chandler in 1954 in semi-retirement, but practiced medicine until his death. He was a graduate of the I. U. School of Medicine in 1918.

Norman E. Jobes, M.D.

Dr. Norman E. Jobes, 91, a native of Farmland, Ind., and former president of the Indianapolis Medical Society, died August 4 in Indianapolis.

Dr. Jobes began practice in Indianapolis in 1896 and was superintendent of the Marion County General Hospital from 1903 to 1907. The surgeon went into semi-retirement seven years ago. He was a member of the ISMA 50-Year-Club.

Howard A. Kinnaman, M.D.

Dr. Howard A. Kinnaman, 68, died August 11 in Crawfordsville.

Dr. Kinnaman, a general practitioner, retired this year after practicing medicine for 40 years. He was a graduate of Johns Hopkins.

William J. Molloy, M.D.

Dr. William J. Molloy, 90, a practicing physician in Muncie for more than 50 years, passed away August 10.

The former Delaware-Blackford county health officer was a member of the ISMA 50-Year-Club. He was graduated from the I. U. School of Medicine in 1901.

Edward Moser, M.D.

Dr. Edward Moser, 88, a senior member and member of the ISMA 50-Year-Club, died August 14 at his home in Ft. Wayne.

Dr. Moser, a native of Berne, Switzerland, came to this country as a youth. He graduated from Hahnemann Medical College in Chicago.

Arthur Paul Schulz, M.D.

Dr. Arthur Paul Schulz, former resident of Ft. Wayne, died August 19 in Wyandotte, Mich.

Dr. Schulz, 81, was a graduate of the Detroit Homeopathic School of Medicine in 1906.

Jay Webb Thom, M.D.

Dr. Jay Webb Thom, retired Army Medical Corps captain who was serving as an examining physician and medical consultant for the Veterans Administration regional office in Indianapolis, died August 13.

Dr. Thom, 67, was graduated from Franklin College in 1917. In 1930, he was graduated from the I. U. School of Medicine and served his internship at St. Vincent's Hospital. He joined the Veterans Administration in Indianapolis in 1948. ◄

COOK COUNTY
GRADUATE SCHOOL OF MEDICINE

CONTINUING EDUCATION COURSES
STARTING DATES — FALL, 1962

Surgical Technic, Two Weeks, November 5
Surgery of Colon and Rectum, One Week, November 26
Vaginal Approach to Pelvic Surgery, One Week, December 17
Gynecology, Office and Operative, Two Weeks, November 5
Obstetrics, General and Surgical, Two Weeks, November 26
Urology, Two Weeks, October 29
Proctoscopy & Sigmoidoscopy, One Week, October 29, December 17
Varicose Veins, One Week, October 29, December 17
General Surgery, One Week, October 29
Advances in Medicine, One Week, October 15
Advances in Surgery, One Week, December 10
Blood Vessel Surgery, One Week, October 22
Board of Surgery Review, Part I, Two Weeks, November 5
Board of Surgery Review, Part II, Two Weeks, November 26
Diagnostic Radiology, Two Weeks, October 29
Basic Internal Medicine, Two Weeks, November 5
Management of Common Fractures and Dislocations, One Week, December 3
Board of Internal Medicine Review, Part II, One Week, December 3
Information concerning numerous other continuation courses available upon request.

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The Journal
of the INDIANA STATE MEDICAL ASSOCIATION

November 1962

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EDITORIAL AND ADVERTISING INFORMATION

All articles must be typewritten, double-spaced with margins of one inch.

Photographs should be printed on glossy paper. Negatives cannot be used.

Illustrations are desirable. Selection of illustrations submitted at discretion of editor and editorial board members. Cost of color illustrations must be shared by the author.

Contributors are responsible for all statements made in their articles. The editors and editorial board members may not be in agreement with all views expressed by authors, but it is desired to give all authors as great latitude as possible. However, the right is reserved to reduce in length or reject any article.

Articles are accepted for publication with the understanding that they are submitted for exclusive publication in THE JOURNAL of the Indiana State Medical Association.

Communications dealing with editorial matter should be sent to Frank B. Ramsey, M.D., Editor, 1802 North Illinois Street, Indianapolis 2, Indiana. All other communications should be sent to THE JOURNAL of the Indiana State Medical Association, 3935 N. Meridian, Indianapolis 8.

Advertising rates will be furnished on request. Copy must be received by the 5th of the month preceding month of issue. (Scientific manuscripts must be received at least two weeks earlier if geared for a specific issue.)

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Cover story
on page 1644.

what your patients need to know about Aspirin



As you know, the confidence your patients place in a certain treatment or drug often helps to reinforce the relief they get from it. That's why it's often a good idea to explain the reasons for your recommendations, even in the simplest cases.

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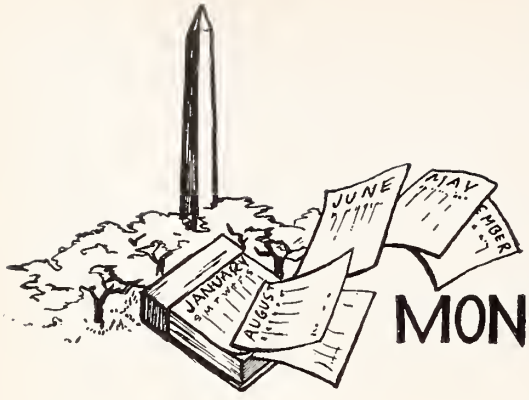
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This summary of what is happening in Washington is prepared by A.M.A.'s Capitol office and air-mailed to *The Journal* on the ninth of each month preceding month of issue.

MONTH IN WASHINGTON

WASHINGTON, D. C.—Influenced strongly by the thalidomide incident, Congress approved legislation giving the Food and Drug Administration more control over the prescription drug industry.

The Kennedy Administration and Sen. Estes Kefauver (D., Tenn.), chief sponsor of ethical drug legislation, successfully exploited the thalidomide incident after prospects of passage of a strong drug bill waned.

However, they were unable to get all they wanted in the legislation even with the impact on Congress of the widespread publicity about the clinical testing of thalidomide in this country coupled with reports from Europe of births of malformed children by women who had taken the drug during pregnancy.

One administration proposal rejected by Congress would have given the Secretary of Health, Education and Welfare authority to require physicians to report directly to him on their clinical tests with new drugs.

The new law empowers the FDA to require "substantial evidence" of the efficacy, as well as safety, of new drugs before licensing them for marketing. The AMA had warned Congress that this might lead to a test of relative efficacy which could result in potentially-helpful drugs being barred from sale. The AMA contended that the old FDA requirement that a drug live up to its label claims was a sufficient test of effectiveness.

The Pharmaceutical Manufacturers Association also warned that drug research might slow down as a result of the new law.

"Some provisions of the new law may not be helpful to the public," the PMA said. "In fact, unless there is the wisest administration of the law, harm can be done. For example, medical research may slow down and the costs of medications may increase."

Physicians will be required to get the consent of the patient, or a close relative, for treatment with experimental drugs except in instances where the physician feels that it would not be feasible or would be contrary to his professional judgment. Consent already is a part of the code of ethics of the American Medical Association.

Some other major provisions of the new law:

—Authorizes the FDA to swiftly suspend any drug which it suspects is dangerous.

Continued

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Continued

—Requires that the generic name of a drug be printed on the label in type half as large as that for the trade name.

—Extends the time during which FDA may review a new drug application before it must be approved or disapproved.

—Authorizes the HEW Secretary to establish generic names for new drugs.

—Authorizes the HEW Secretary to prevent testing of drugs on humans if he determines there has not been sufficient preclinical testing.

—Requires batch certification of all antibiotics.

$36 MILLION VACCINATION AID GIVEN

Congress passed a bill authorizing a $36 million three-year program for federal aid for intensive vaccination programs against polio, diphtheria, whooping cough and tetanus.

The vaccination campaigns are to be aimed primarily at children less than five years old. The U. S. Surgeon General was given broad authority in deciding the amount and terms of federal grants under the program.

Grants will be made to states or, when approved by state officials, to cities or other local governmental units.

Also on the immunization front, a special advisory committee twice recommended to the Public Health Service that Type III oral polio vaccinations be continued for pre-school and school age children but not for adults for the time being.

The Public Health Service accepted the recommendation and urged that communities proceed with planned mass vaccination campaigns using Type III for children. But some communities decided to hold up their mass immunization programs at least temporarily or to suspend Type III doses for children, as well as adults.

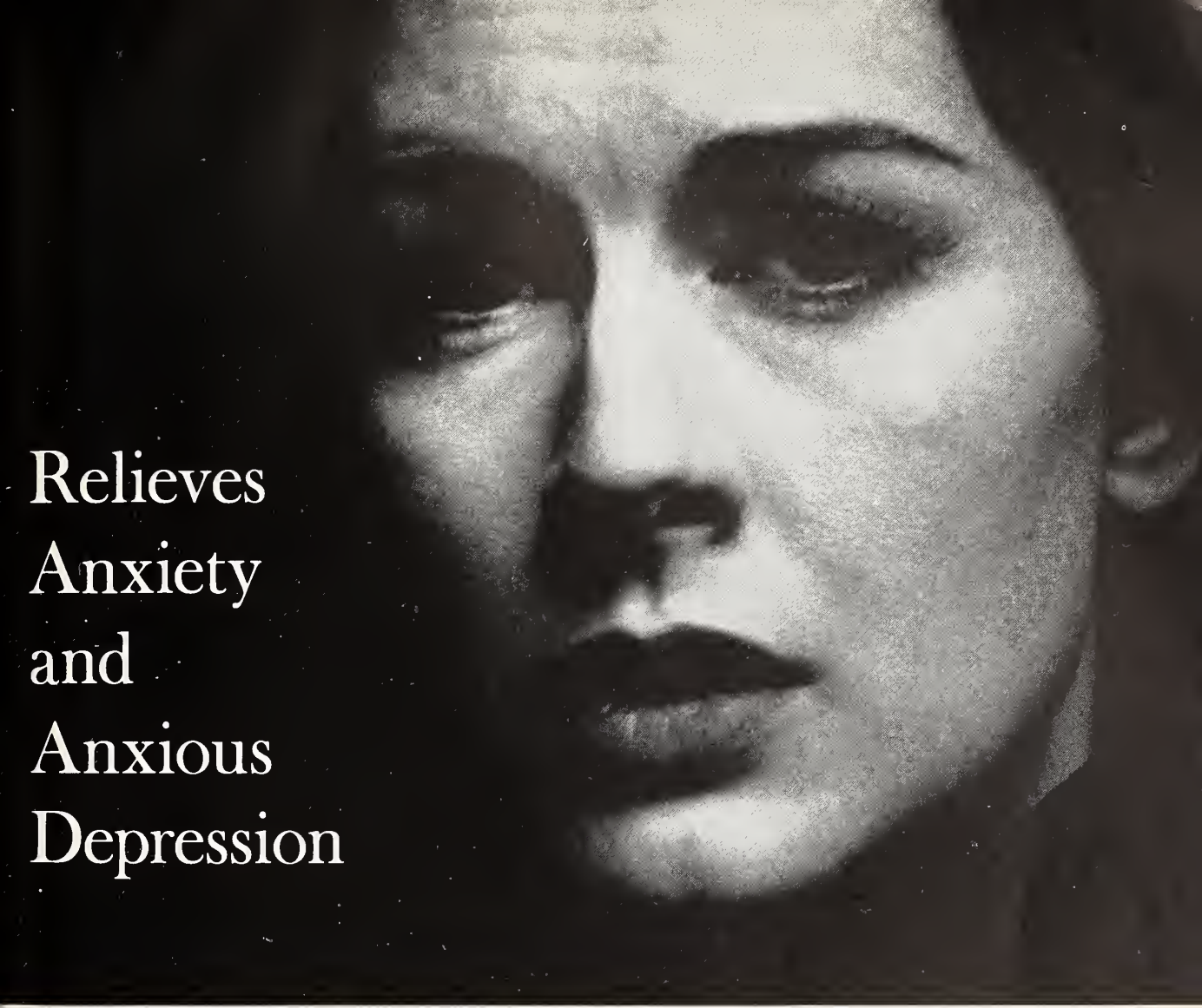
The advisory committee first made its oral polio vaccine recommendation at an emergency meeting on September 15. The meeting was called after Canada suspended use of oral polio vaccine. The Health Ministry action in Canada, where all three types of the oral vaccine had been given in one dose, was prompted by the occurrence of a few cases of Type III polio. The three types of vaccine are given in separate doses in this country.

There also were at that time a few Type III cases reported in this country among adults who had taken the oral vaccine.

After an Oct. 2 meeting, Dr. Luther L. Terry, Surgeon General of the PHS, said:

"The recommendation that Type III be confined to children has raised the question of spread from vaccinated children to adults, especially family members. The evidence does not indicate a hazard to adults exposed in this way."

Continued



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"The level of this risk can only be approximated but clearly is within range of less than one case per million doses. Since the (Type III) cases have been concentrated among adults the risk to this group is greater whereas the risk to children is exceedingly slight or practically nonexistent."

PHYSICIANS GET DEDUCTION FOR RETIREMENT PLANS

President Kennedy signed into law H.R. 10, a bill permitting physicians and other self-employed persons to take a federal income tax deduction for private pension plans.

Kennedy signed the legislation less than six hours before the midnight Oct. 10 deadline that he had to act on the measure. If he had not signed it by then, it would have become law without his signature. It appeared certain that a Presidential veto would have been overridden.

Physicians represent less than three percent of the self-employed who could benefit under the new law.

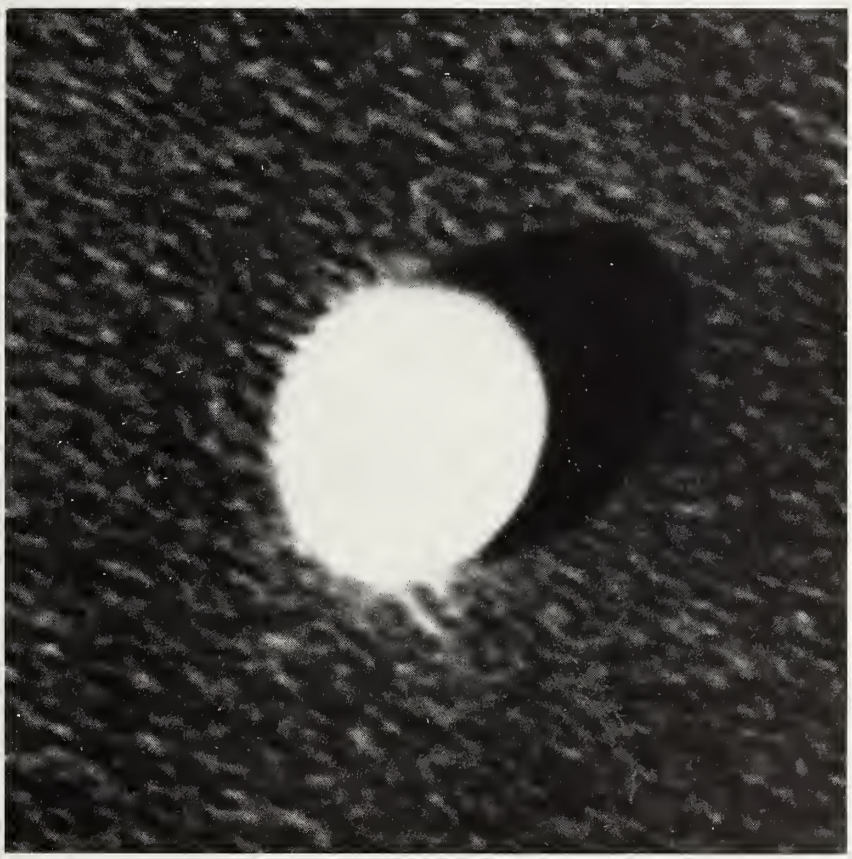
Enactment of the legislation into law climaxed a 12-year battle in Congress. The House passed it twice, in 1958 and 1959, but it died each time in the Senate with adjournment.

This year the House passed it with a 361-0 vote. The Senate vote was 70 to 8.

The new law authorizes a self-employed individual, such as a physician, to contribute up to 10% of his earned income or $2,500, whichever is less, toward a retirement plan, provided he includes all of his employees with three or more years of service under the plan. A tax deduction of half of the contribution to the self-employed person's retirement plan would be allowed.

The contributions made on behalf of employees would be fully tax deductible.

The measure prohibits drawing on the retirement funds without penalty before age 59½, except in case of disability or death. ◄





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LOOKS AT MEDICINE

This section of THE JOURNAL is devoted to the presentation of opinions which appear on the editorial pages of the public press, and which are of interest to the medical profession. Its function is to review comments which may be favorable or unfavorable to medicine. Members are invited to submit editorial clippings for this column.

The 'Medicare' Defeat

Last week's rebuff in the U. S. Senate, by a 52 to 48 vote, of a so-called "medicare" proposal, saw 21 Democrats join 31 Republicans in voting against the measure and five Republicans join 43 Democrats in favor of it.

The vote was not on the well-publicized King-Anderson bill, which is yet to come to a vote in the House of Representatives where the best opinion holds it is doomed to fail, but on an amendment to a public assistance and child welfare bill already passed by the House. The amendment, while removing some of King-Anderson's objectionable features, still contained much that is undesirable.

President Kennedy's quick summoning of a press conference following the Senate's adverse vote, and his announcement that "this is a most serious defeat for every American family, for the 17,000,000 Americans over 65," makes it appear that northern and western Democrats brought up the amendment to create a fall campaign issue.

The fact that the proposal was brought out as an amendment to a bill on the Senate floor, without the formality of committee hearings on the complex problem, showed evidence of hasty political carpenter work.

Critics of the amendment showed that for what little care would be provided by the Anderson-Javits amendment, less than that potentially offered in the existing Kerr-Mills law, the cost would be excessive.

President Kennedy has promised that a medicare bill will be brought up in the next Congress, and has appealed to the voters to return to Congress people who will support that sort of legislation.

There is a problem of paying for the medical care of those over 65 who are unable to do so, but that doesn't mean all 17,000,000 of those over 65. Some 53 per cent of those over 65 now have some form of private hospitalization insurance, and the Health Insurance Institute estimates that 75% of those needing it will have such insurance by 1969.

• • •

FOR THE others, Kerr-Mills provides federal help for states wishing to implement such programs, if the states wish to take advantage of the plan.

The vote that killed the Anderson-Javits amendment, with its patently political overtones, was a good one. The subject of medical care for the aged unable to provide it is too important to be kicked around for political vote-getting via a hastily-contrived, jerrybuilt scheme that would cost everybody and benefit few.—*The Hammond Times*, July 22, 1962.

The Canadian Doctor Strike

Last week's demonstrations by citizens of Regina, the capital of Saskatchewan, against the compulsory medical care plan of the government of that Canadian province, are worth reflection because of what they signify.

One of the reasons the large number of people in Regina expressed their protests so dramatically is that they want to keep the confidential and traditional relationship between doctor and patient intact. They are concerned that government entry into

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medicine might lead to ending the individual's freedom to choose his own doctor.

Another cause of the objections to the plan is that it prohibits doctors from engaging in private practice. Many people feel it is wrong for a government to do this. They see it as a first step toward regulating the lives of citizens in other professions and trades.

Among the virtues of a free country is that any citizen can enter the professional or trades field of his choice and, through whatever talent and initiative he may possess, succeed to whatever extent his ingenuity and ability will allow. If a government steps in and tells the individual that he cannot have this freedom to strive for advancement, it is restraining liberty.

It may be that there are abuses in the private practice of medicine, but a far greater abuse is to regiment doctors. If the medical profession can be regimented and supervised by government, what is to prevent government from extending its control to other trades and skills?

We should be concerned about the medical care of our growing elderly population. Few people dispute that. But we should go about it by providing for adequate care through free enterprise. Let us concentrate our energies on improving this medicare through the private enterprise way.—*Kokomo Tribune,* July 15, 1962.

Dead For This Session

Senators who voted against, and helped defeat, the Kennedy medical care for the aged plan will be pilloried unfairly in the election campaign this fall.

They will be accused of denying medical help for the nation's elderly people.

This will be a false accusation, because no one wants needy aged people to be without medical care. What people disagree over is not that there should be such care, but how it should be provided.

There are those who think the government should finance medical aid through a federal tax, and there are those who think it should be financed in some other way.

Some of the senators who voted against the Kennedy plan Tuesday feel that if government underwrites a medical program, it will be getting its foot inside the door which could open to socialized medicine. However much the administration denies that its long-range objective is socialized medicine, an uneasy feeling persists that the President's advisers include men who would make the United States as much of a socialist country as possible and that government control of medicine represents one path down which this end could be achieved.

There are people who distrust the idea of the government financing medicine because it would mean a tax increase, and higher taxes aren't popular right now. Actually, taxes already are so high and the nation's business conditions are so unsettled that on nearly every hand there is a call for reduction of taxes.

Once the government gets into the vast program of paying for medical needs, there is no telling how much the cost will be. The President's plan which would have financed medicare through Social Security, had no limitations on how much it might add to Social Security taxes in years to come. It amounted to another vast spending program at a time when the country cannot raise all the money for the things it already is undertaking.

As the President wanted it, the plan would have made no distinction between those who need help with their medical expenses and those who do not. The wealthy would have gotten the same benefits as the poor. Some older people are truly in need, but others are quite well off. Some are better off than young folks on whose shoulders much of the medicare cost would fall.

Financing medicare through a higher Social Security tax would be a compulsory tax which would rest most heavily on the young.

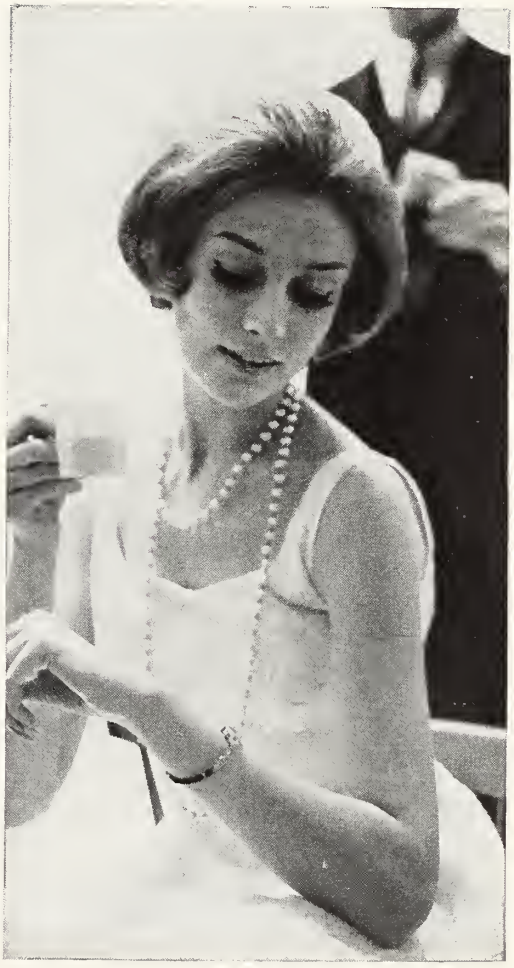
Voluntary, private programs for special coverages for the aged are improving. There is reason to believe they will continue to improve so that older citizens will not need to fear long and costly illness. If our older people's needs can be met in this way, it is better than to risk socialized medicine.

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It seems agreed that medicare is dead for this session of Congress. But President Kennedy has declared he will make it a top issue in the election this fall. This means voters will be told that the Senators who opposed the plan (and there were close to one-third of the Democrats in the Senate who joined Republicans in opposing it) were callously indifferent to the needs of elderly citizens. We do not believe they were callous or indifferent.

On the other hand, we suspect that those who voted for the plan were motivated to a considerable degree by the emotional opportunity it offered for them to garner a harvest of votes in November.—*Kokomo Tribune,* July 10, 1962.

Moving Again?

The defeat of President Kennedy's compulsory medicine bill is a great victory for freedom, and for common sense.

The bill, as The News pointed out in a recent series of editorials, would have gone far, even in its "compromise" form, to insinuate government into the practice of the healing arts. And it would have done so at extravagant cost, in the teeth of overwhelming evidence that America's health needs are being well taken care of through private facilities.

Kennedy has responded to the defeat in characteristic fashion: Those who opposed his program, he says, have thwarted the will of the people, and must be punished. He will "hit the campaign trail," as Jack Bell of AP puts it, to turn out of office the Republicans who voted against the bill.

This is, point for point, the same response Kennedy offered on the defeat of his so-called "urban affairs" department, and of his punitive farm program. In each case, evil Republicans had wronged the people, and must be defeated if we are going to get some action out of Congress.

A glance at the party ratios in the House and Senate will reveal how spurious this argument is. In the House of Representatives, there are 262 Democrats and 174 Republicans. In the Senate, there are 64 Democrats, and only 36 Republicans. Quite obviously, if Kennedy were capable of leading his own party in some semblance of unity, he could pass all the legislation he wants, no matter what the Republicans did.

His problem, of course, is precisely that he cannot control his own party. This is an election year, and members of Congress are sensitive to public opinion. They are more interested in what the voters actually do think than in what the President says they think. And the message they get from home is a resounding "no" to such big-government schemes as compulsory medicine, punitive farm legislation, and nationalization of the cities.

Thus it has been his fellow Democrats, and not the Republican opposition, who have dropped Kennedy through the trap door. In yesterday's vote on "medicare," for example, no less than 21 members of the President's party voted to kill the President's bill. This number includes such Democratic luminaries as Senator George Smathers (an old Kennedy sidekick), Senator Mike Monroney of Oklahoma, Senator J. William Fulbright of Arkansas, and Senator Carl Hayden of Arizona. If a vote against the medical bill is the mark of Cain, will the President work for the defeat of these Senators? Obviously not—which means his oratory in this point is so much political eyewash.

When John Kennedy ran for President in 1960, he proclaimed that the leadership of a Democratic President, plus a Democratic Congress, would "get things moving again." Now, after a full 18 months in office, his leadership is coming apart at the seams, and his program, thwarted by that very same Democratic Congress, is crumbling before his eyes. And all the Presidential arm-twisting in the world is not going to salvage it, because the people of America have made it clear they simply don't want it.

If the President would try to absorb that fact, rather than spouting demagogic phrases at the Republicans, both he and the country would be better off.—*Indianapolis News,* July 18, 1962. ◄

The Journal of the INDIANA STATE MEDICAL ASSOCIATION

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The following five papers were submitted to The Journal for publication from the E. V. Hahn Memorial Contest, sponsored by the Indiana Neuropsychiatric Association in 1960.

Psychiatric Evaluation of Space Flight

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"PSYCHIATRY and space medicine," said Dr. Wernher Von Braun at a recent visit to the Indiana University Medical Center, "will probably be the most advancing fields of extra-terrestial research."

As we begin to envision the new horizons of space, we realize that despite the tremendous advancements in the field of construction engineering, there is a notable lag in development of "personality engineering." It's time that the field of psychiatry started making the strides necessary to cope with the problems of our celestial explorations.

The reaction of man to his new environment in space travel is the primary question mark in spatial progress. To find out how emotional equilibrium can be maintained in an artificial setting, we must first know what the environment must provide if man is to function effectively.[22] Numerous undetermined stresses will be laid upon our space candidates and only through study and experimentation can we cope with such difficulties. Emotional stresses of the space voyage may be less malleable, specifically, than physiological stresses because they are more difficult to study.[25]

Man In Space Creates Problems

Some of the principal psychological problems facing space flight today are the following: (1) selection and training of personnel, (2) human performance, motivation, (3) special stresses, e.g., fear of isolation, sensory deprivation, boredom, discomfort, aesthetics, orientation, perception, inactivity and restraint, and fear of not returning safely, (4) effectiveness of the human servo-mechanism in the man-machine system.[7]

Since we have no direct experience with space flight, some of the aspects of analysis of candidates is speculative. We must thus rely heavily on knowledge of behavior dur-

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Editor's Note:

The author wishes to point out that this paper was written prior to any sub-orbital or orbital flights undertaken by either the U.S.A. or Russia. At the time of writing it was not possible to simulate weightlessness for longer than 60 seconds, therefore the comments contained in this paper regarding the effects of prolonged weightlessness were based on supposition and knowledge available at that time.

ing stress situations in the past. Under standard dynamic interviews and psychological testing, those persons with gross judgmental defects or other major defects in ego integration will be weeded out. Part of the initial screening battery will deal then with such problems as flexibility of personality structure, motivation, cooperativeness, ability to be adventuresome, judgment, ego strength and intelligence in relationship to the identifiable stress factors.[25] Intensive studies are performed on the future "space cadets" in an effort to eliminate as many personality weaknesses as possible.

Since these candidates will be subjected to a wide variety of stresses during flight, it is hoped that any ego deprecation will be discovered beforehand. In most of the interviews, it was noted that the candidates with the greatest likelihood of success were those who appeared to be comfortable, mature and well-integrated individuals. It is the opinion of Dr. Charles Goshen, a member of the National Research Council and Division of Medical Sciences, that "psychiatrists should be the ones to keep the other scientists informed of the fact that things are susceptible to quantitative analysis because they are things, but that humans can be studied in a qualitative way only, because they are human."

Psychological Factors Dominant

The fear of death does not seem to be the most important facet in the uncertainty of the astronaut. Conflicts, insecurities and frustrations appear to play the more dominant role. It is probable that what a man can be expected to do in a satellite could only be determined by actual experience; but it is unfortunate that the environmental conditions which he will encounter are those most likely to affect the logical and purposeful functioning of the brain.[28]

The reasons for volunteering for space flight appear to be mainly a mixture of professionalism, love of adventure and desire to conquer and explore unknown areas. Prestige and recognition also play a role, but a less dominant one.[14]

The foreseeable and unforeseeable stresses of space flight present the greatest challenge to the psychiatrist. It is the obligation of this medical specialist to aid the astronaut in his preparation for these external and internal forces. Man may be strong enough to withstand one particular stress and yet succumb to another. If the psychiatrist can help the space candidate in simulating his mission, there will be a much greater chance of success in predicting the response to the eventual real conditions.

The central psychological problem of man's initial ventures into space may be that of separation. Separation anxiety in terms of child and mother are well known to psychiatrists. Separation from the earth with all of its unconscious symbolic significance for man, the breaking off of human relatedness which it implies, the disappearance of the interpersonal cues which help to give him identity and the need to operate in a new space time frame of reference . . . these are unexplored.[2]

An individual must have a high threshold for stress tolerance in all respects to function optimally in space flight.

Psychiatric Aid Invaluable

As noted previously, our knowledge of psychological stress is still based largely on inference. Such stresses as loneliness in space and prolonged zero-gravity states cannot be simulated in the laboratory.[24] The psychiatrist must use his broad experience to aid in the orientation of the space pilot to future events. Despite the fact that an individual may be well motivated and stress-tolerant, if he cannot get along or function successfully in a group, it seems apparent that he would be detrimental to a satisfactory operation.

The necessity and ability of man to adjust to weightlessness is astounding in itself. Although this condition has only been prolonged for a period of about 60 seconds, it appears that most subjects enjoy the experience. It is difficult to predict, however, what will happen during longer periods of exposure.[2] An interesting but important item pertinent to weightlessness is the fact that the subjects improved considerably in their physical abilities on subsequent experiments. They learned to compensate for the loss of weight, especially when harness

and safety belts were fitted tightly during the experiment.[4]

Experienced jet flyers were generally symptom free prior to the zero-gravity experiments but the less experienced individuals noted some signs of mild fear. This latter group might be compared to the inexperienced swimmer who is pulled under water. His first reaction is one of panic as compared to that of the experienced swimmer. The anxiety threshold of the beginning swimmer is markedly reduced in contrast to the seasoned veteran. Similarly, the neophytic flyer has a lack of familiarity with this new realm of weight apportionment.

At supersonic speeds, extremely interesting phenomena may occur with regard to color, form and depth perception. Therefore, the necessity of developing a supersonic physiology of the senses has arisen which opens to both the physiologist and the psychiatrist extensive and fascinating fields for speculation and experimental observation in supersonic vehicles.[29]

During experiments, the most common problem among the subjects has been arousal of hostile feelings toward fellow crew members. This has led some observers to remark that on longer space trips, marital partners might be appropriate.

"Perceptual space" refers to the distance between the subject and the point at which barriers to sensory input are placed. With all other conditions held constant, blocking light and sound by goggles and earplugs may produce more anxiety than blocking input by the walls of a chamber several feet from the head.[24]

Stress Magnifies Personality Disorders

In an experiment performed at the School of Aviation Medicine, USAF Aerospace Medical Center, Brooks Air Force Base, Texas, four volunteers were drawn to undertake simulated orbital flights of 36 hours duration. Of the four volunteers, only two were able to complete the "flight." One of those who failed to complete the flight was a 23-year-old high school graduate. He had volunteered for flights on several occasions and seemed pleased when finally accepted. He was cheerful and comfortable while talking with personnel outside the chamber, during the six hours of pad time.

He made his first transit report 1½ hours after going into altitude. At this time, he complained of poor focus on the TV monitor presenting the operator's tasks. When it became apparent that the system was functioning perfectly, he complained of blurred vision and requested the flight be terminated since he would be unable to perform adequately. He was told to lean back and close his eyes, but to continue the flight. Nevertheless, he became increasingly tense and said, "It's more than my eyes. I've got to get out of here. I just can't take it anymore. I'm sorry."

The flight was terminated and the subject left the chamber, obviously distressed and humiliated. Psychiatric and psychometric examination helped to explain his unusual behavior. It dated back to his early years when the subject had a rather turbulent adolescence, characterized by overwhelming feelings of inadequacy in social relationships.

During high school and a year of college, highly competitive feelings combined with underlying insecurity and fear of failure led him to interrupt his education on several occasions. (Similar feelings were apparent during the psychiatric evaluation.) He had adjusted well to military life with the help and support from authoritative figures. The subject volunteered for the flight as a maneuver in his lifelong battle with feelings of inadequacy and inferiority.

This case is an illustrative example of how simulated space flight conditions can cause sufficient stress to permit any personality defects to become magnified.

Behavioral Extremes Not Reliable

A subject with obsessive-compulsive features may seize upon some aspect of the experiment as a "mission" and diligently attempt to carry out what he views as his assignment. Dependent subjects cling to relationships with the experimenters. The passive-aggressive subject looks upon the experiment as a battle and searches for ways to foil his adversaries.[24] It is clearly apparent that persons representing extremes in any single behavioral or physio-

logical dimension frequently may not function optimally.

Eliminating verbal communication increases the significance of nonverbal and implied communication. An individual who cannot communicate directly may not feel isolated when physiological reactions are recorded. He quickly perceives that wires convey information on his behavior. Isolation can be stressful, not only because fewer physical stimuli impinge upon the receptors, but also because the meaning they ordinarily convey to the subject are lost.[24]

Even the type of diet consumed by the subject during space flight can cause anxiety reactions. It has been found that acceptability of rations was affected by prior exposure to unfavorable opinions, unfavorable personal expectations, perception of crew attitudes, hunger and fatigue at the time of initial use, nibbling only small quantities at a time and food aversions exhibited presently or during childhood.[30]

The knowledge of the danger of space flight is sufficient to cause emotional upheaval. As the subject prepares for the countdown, anxiety approaching panic may occur . . . and understandably so. The early space travelers will probably be experienced test pilots, so these stress factors will not be an entirely new feeling to them. It is hoped that the initial interviews, orientation and preparations will be sufficient to prevent the pilot from going beyond his stress threshold. This, however, will not be known until the time of departure. During experiments, the subject's infantile fantasies, as well as the possibility that equipment failure or operator error may cause death within a few seconds, are realistic sources of anxiety.[2]

Separation anxiety plus the sensory input patterns which may be encountered in space flight, and such apparently basic fears as that of impenetrable darkness might in theory at least be expected in time to produce . . . even in a well-selected and trained pilot, something akin to the panic of schizophrenia.[2]

Greatest Limitations Are of Man

It is becoming grossly apparent to us now that our ability to control and design the mechanical facets of space travel have far exceeded our mastery of the human element. With more and more study, it appears that the greatest limitation of space flight will be the limitations on man himself. Under conditions of intense anxiety, the ability to function adequately under fairly good "g" tolerance is greatly reduced. This has been substantiated in several laboratory studies. Stress may cause increased reflex capability up to a certain point but beyond this borderline, efficiency and ability to perform are diminished.

The majority of space psychiatrists seem to believe that man is capable of adapting to unknown surroundings of the outer atmosphere. Since emotional hazards analogous to those likely to arise in space have been overcome on earth, we infer that space flight will impose no intolerable stress on carefully selected, trained crews.[24] Voyagers in the 15th and 16th centuries lived in ships scarcely larger than the vehicles envisioned for Martian expeditions. Believing they were headed toward a sea-monster infested, boiling ocean, which might eventually end and pitch them into the void, these men were probably under greater emotional stress than future astronauts.[22] It was found in most studies that the candidates who ranked best on the adaptation to physiological stresses, also rated likewise on the psychological stresses.

In our evaluation of man's position in the field of space travel, we must recognize that he is an integral part of an infinite network of variables. We must appreciate his limitations but not underestimate his adaptability. Good adaptation means, despite certain conflicts, to perform effectively in any situation while accepting certain frustrations and postponing the gratification of many inner needs until the proper time and place for their satisfaction. To deny or even overlook the disastrous influence of emotional forces in the impairment of flying effectiveness is as serious as to deny the insidiously harmful, destructive effect of infectious bacteria because they, too, may be invisible.[6]

No matter what the doctor of medicine's interest is concerning the exploration of

space, it is inevitable that he will feel its impact.

BIBLIOGRAPHY

1. Berne, E.: The Psychological Structure of Space with Some Remarks on Robinson Crusoe, *Psychoanalytical Quart.*, 25(4), p. 549-67, 1956.
2. Brody, E. B.: Symposium on Space Psychiatry: Discussion, *Am. J. of Psychiatry*, 115(2), p. 1112-1113, June, 1959.
3. Campbell, Dannenberg, Roberts: Space Travel, *Jr. of Av. Med.*, 28(5), p. 479-512, October, 1957.
4. Campbell, P. A., Gerathewohl, S. J.: The Present Status of the Problem of Weightlessness, *Tex. State J. of Med.*, 55(4), p. 267-74, Apr., 1959.
5. Gatto, L. E.: Fear of Flying Syndrome; Part I, *Roy. Thai. Air Force M. Gaz.*, 2:97-114, June, 1953.
6. Gatto, L. E.: Understanding the "Fear of Flying" Syndrome, *USAF Med. Jr.*, 5(9), p. 1093-1116, Sept., 1954.
7. Goshen, C. E.: Space Science and Research in Human Behavior, *Dis. Nerv. Syst.*, 21(2) Suppl. 106-111, Feb., 1960.
8. Graybiel, A., Medicine and the Conquest of Space, *J. Florida Med. Assoc.*, 46:1561-2, June, 1960.
9. Grinker, R. R., Spiegel, J. P.: *Men Under Stress*, The Blakiston Co., Philadelphia, Pa., 1946.
10. Hock, R. J.: Potential Application of Hibernation to Space Travel, *Aerospace Med.*, 31:485-9, June, 1960.
11. Haber, H.: *The Physical Environment of the Flyer*, Randolph Air Force Base, Texas: USAF School of Aviation Medicine, 1954.
12. Hebb, D. O., Heath, E. S., Stuart, E. A.: Experimental Deafness, *Can. J. Psychol.*, 8:152-156, 1954.
13. Kinsey, J. L.: Neuropsychiatric Aspects of Space and Depth Medicine, *Dis. Nerv. Syst.*, 21(2) Suppl.: 112-5, Feb., 1960.
14. Johnson, L. C.: Attitudes and Motivations of Test Pilots, *USAF Med. Jr.*, 8(5), p. 718-24, May, 1957.
15. Lilly, J. C.: Mental Effects of Reduction of Ordinary Levels of Physical Stimuli on Intact, Healthy Persons, *Psychia. Res. Rep.*, 5:1-28, 1956.
16. Levy, E. Z., Ruff, G. E., Thaler, V. H.: Studies in Human Isolation, *J.A.M.A.*, 169:236-239, 1959.
17. Mebane, J. C.: Clinical Neuropsychiatry in Aviation Medicine, A Survey of 100 Military Problem Cases, *J. Av. Med.*, 26:471, 1955.
18. Miles, W. R.: Psychological Aspects of Military Aviation, *Am. Jr. Scient.*, 33:1, July, 1945.
19. Man on the Moon, *Brit. Med. Jr.*, No. 5054, p. 1165-6, Nov. 16, 1957.
20. Man in Space, *Lancet*, 268(6863), p. 601, Mar. 12, 1955.
21. Newell, H. E. Jr.: The Space Environment, *Science*, 131:385-90, Feb. 12, 1960.
22. Ruff, G. E.: Psychiatric Problems in Space Flight, *Dis. Nerv. Syst.*, 21(2) Suppl. 98-101, Feb., 1960.
23. Ruff, G. E., Levy, E. Z.: Psychiatric Evaluation of Candidates for Space Flight, *Am. J. Psych.*, 116:385-91, Nov., 1959.
24. Ruff, G. E., Levy, E. Z.: Psychiatry Research in Space Medicine, *Am. J. Psych.*, 115(9), p. 793-7, Mar., 1959.
25. Silverman, A. J., Cohen, S. I., Shmavonian, B.: Investigation of Possible Importance in Space Psychiatry, *Dis. Nerv. Syst.*, 21(2) Suppl. 102-5, Feb., 1960.
26. Simons, D. G.: Pilot Reaction During Manhigh II Balloon Flight, *J. of Av. Med.*, 29(1), p. 1-14, Jan., 1958.
27. Steinkamp, G. R.: Human Factors in Space Flight, *J. Arkans. Med. Soc.*, 56:338-42, Feb., 1960.
28. Stewart, W. K.: Behavior in Conventional and Extra-Terrestrial Flight, *Nature* (London), 184:578-582, Aug. 22, 1959.
29. Strughold, H.: The Human Time Factor in Flight, *Jr. Av. Med.*, 20:300, 1949.
30. Torrance, E. P., Mason, R.: Psychologic and Sociologic Aspects of Survival Ration Acceptability, *Am. Jr. of Clin. Nutrit.*, 5(2), p. 176, Apr., 1957.
31. White, M. S.: The Aeromedical Realities of Space Travel, *Jr. of Av. Med.*, 29:10, Oct., 1958.
32. Williams, R. L.: The Nature of Space Flight, *Am. Jr. of Psych.*, 115(2), p. 1108-1109, June, 1959. ◄

The Significance of Spider Angiomata In Chronic Schizophrenic Reactions

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THE INTERESTING observation that most male patients with a chronic schizophrenic reaction were found to have numerous spider angiomata on their abdomen and thorax has led to some speculation as to their etiology and its relationship to the dynamic mechanism of chronic schizophrenic reactions. It was for this reason the following data were obtained.

Subjects and Material

The subjects for this study were white male patients at the Indiana Central Farm Colony. A comparison was made of patients diagnosed as having a chronic schizophrenic reaction to those diagnosed as having a chronic brain syndrome, regardless of cause. There were 15 patients with a diagnosis of chronic schizophrenia all of whom had three or more (average 25-30) spider angiomata on the trunkal regions of their bodies.

There were also 15 patients with a diagnosis of chronic brain syndrome of whom only three had spider angiomata on their trunk, all three had a secondary diagnosis of psychotic reaction. There also seemed to be a direct correlation between the number and size of the angiomata and the length and severity of the schizophrenic reaction. This however, was not specifically recorded due to lack of time.

The following types of patients were not included in the study: (a) Any patient with clinical signs of liver disease, and (b) Negro patients because of the difficulty in definitely establishing the presence of spider angiomata.

Discussion

Reviewing the literature as to the etiology of spider angiomata, the following theoretical explanations were found:

(1) External injuries (i.e. constant exposure to light), are responsible.
(2) Hormonal factors due to liver damage, notably the loss of hormone breakdown by the liver causing increased hormonal levels.
(3) Hormonal factors unrelated to liver disease, notably excessive production by the endocrine organs.

Regarding the first theory of an external trauma being the cause, I do not believe there is any such common denominator in these patients especially in regard to exposure to light since the areas exposed were no more involved than the unexposed.

The second theory of increased hormone levels due to liver damage can also be excluded in our patients, but not without some consideration in view of the fact many of these patients were taking Thorazine, and Thorazine-like drugs. This concept was then investigated and there was found to be no direct relationship between those on Thorazine therapy in that:

(1) Only approximately 50% of the patients were taking Thorazine.
(2) There was no relationship to the amount of Thorazine taken nor the length of Thorazine therapy and the number of spider angiomata.
(3) Dr. Walter Bruetsch, pathologist at Central State Hospital, has found no constant evidence of liver damage at autopsy in those patients who received Thorazine.

Evidence of another type of liver damage, other than due to Thorazine, was also not found in the autopsy records of Dr. Bruetsch.

This then leaves the only other possible explanation — an increase in endogenous hormone production by the body. This hor-

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mone has usually been considered to be due to an increase in estrogen levels or possibly progesterone levels since spider angiomata are present in conditions of liver damage and in pregnancy. Both of these conditions have increased progesterone and estrogen levels, in liver damage due to decreased metabolism and in pregnancy due to increased production. In these cases of chronic schizophrenic reactions in males, the only one it could be would be progesterone which is produced in the adrenal cortex, since estrogen production here is only minimal. This then will fit well into the concept of stress proposed by Hans Selye[1] — that stress, physical or mental, can cause increased secretion by the anterior pituitary.

A brief summary of the above concept and the ever-growing body of evidence that there is an increase in anterior pituitary secretion in stress follows. However, before we can accept this as a possible explanation, the following point should be made, schizophrenic reaction is a response to extreme endogenous stress on an individual. Following are a few excerpts from this widening source of knowledge concerning response of the anterior pituitary to stress.

(1) It was found (by Dr. Persky, et al.[5]) that in the urine of a patient under mental stress and in anxious patients, the levels of plasma hydrocortisone, urinary hydroxycorticoid, and 17-ketosteroids were significantly increased and the degree of elevation corresponded surprisingly well to the level of stress or the level of anxiety present according to the various independent psychological testing procedures.

There was also found to be clinical indication of this increase in corticosteroids as evidenced by the fall in the eosinophile count in those persons undergoing mental stress.

In view of the above two findings, Dr. Persky, et al., showed that this elevation of corticosteroids was not due to increased sensitivity to ACTH nor a prolonged reaction to ACTH on the part of the adrenal cortex but was due to an increase in the corticotropin levels. They proved this by both the ascorbic acid depletion method and the adrenal weight maintenance method. They also found in these measurements a direct relationship between the level of corticotropin and the level of anxiety.

The fact that the adrenals were necessary for the thymoico-lymphatic involution or characteristic blood count changes was shown by Selye as early as 1936 when these changes failed to appear in adrenalectomized rats exposed to stressor agents but would re-occur in the same animals when impure cortical extract was administered.

(2) It was then found by Dr. Persky, Howard Jackson, and myself[4] that the interstitial cell stimulating hormone (ICSH) was also significantly elevated in the urine of anxious patients and this too was in direct relationship to the level of anxiety as found by independent psychiatric interview and psychological testing. The ICSH content of ten non-anxious control subjects' urine averaged 18 I. U./day (expressed as I. U. of human chorionic gonadotropin), while that of the ten anxious patients averaged 39.7 I. U./day, hence, 125% greater excretion which is a difference significant at better than the 5% level of confidence. The ICSH output per day was shown to be significantly correlated with the clinical anxiety estimated independently by means of a rating scale ($F=3.94$).

(3) It has been known for years that various mental stresses would trigger hyperthyroid patients into a "thyroid crisis."

(4) Other manifestations have been shown both clinically and in the laboratory of a step up in the various endocrine secretions (i.e., epinephrine and insulin) and in sympathetic nervous system tone (i.e., the tachycardia, sweating, etc.) accompanying anxiety reactions.

The above manifestations as indications for an increase in the hypothalamic-pituitary-end organ functions in anxiety reactions lead me to think it not too improper to postulate the following:

(1) That spider angiomata are the result of an increase in the progesterone production of the adrenal cortex in response to increased corticotropin levels found during anxiety reactions.

(2) That chronic schizophrenia reaction has included as part of its basis a

chronic stress probably in the form of a chronic anxiety reaction.

I might add, to further substantiate the evidence that spider angiomata are due to a chronic increase in the level of hormonal factors, that the most constant time they are present in healthy female individuals is during pregnancy which is in fact an experiment in the nature of a chronic increase in the same hormonal factors. It is also significant to note that following pregnancy and after the level of hormonal factors again approach normal, there is a great regression in size and reduction in number of these spider angiomata; possibly suggesting that the chronic schizophrenic reaction is not merely a reaction to an acute stress but the reaction to chronic stress or stresses.

Summary

It was found that male patients with a chronic schizophrenic reaction had a higher incidence of spider angiomata on their bodies than non-anxious males. It was subsequently postulated that the etiology was that of a high progesterone output by the adrenal cortex in response to increased levels of corticotropin which was in turn a physiologic response to the chronic stress or stresses that probably play some role in causing the schizophrenic reaction.

BIBLIOGRAPHY

1. Selye, Hans: "Endocrine Reactions During Stress," *Current Researches in Anesthesia and Analgesia*, May-June, 1956, pp. 182-93.
2. Stemberg, Cepalak: "The Influence of Fear and Surgical Procedure On The Number of Circulating Eosinophils," *Int. Rec. Med.*, 1958, 171/11, 649-54.
3. Count, Mathur, Sachdev: "Mental Stress & Eosinophil Count," *Indiana J. Physiol. Pharmacol.*, 1958, 2/2, pp. 381-86.
4. Persky, Jackson, McCurdy: "Urinary Excretion of Lutenizing Hormone by Anxious Patients and Normal Subjects," presented to Am. Assoc. of Endocrinology, June, 1960, Miami, Florida.
5. Persky, Grinker, Hamburg: "Adrenal Cortical Function in Anxious Human Subjects: Plasma Level and Urinary Excretion of Hydrocortisone," *Arch. Neurol. & Psychiat.* 76:549, 1956.
6. Persky, Harold: "Adrenal Cortical Function In Anxious Human Subjects: Effect of ACTH on Plasma Hydrocortisone and Urinary Hydroxycorticoid Excretion," *Arch. Neurol. & Psychiat.*, 78:95, 1957.
7. Persky, Maroc, Condrad: "Blood Corticotropin and Adrenal Weight. Maintenance Factors Levels of Anxious Patients and Normal Subjects," *Psychosomatic Medicine*, 21/5, Sept.-Oct., 1959. ◄

Diabetic Neuropathy: A Case Review and Discussion

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THIS PAPER WAS instigated by the admission of a 61-year-old white male to the Veterans Administration Hospital in Indianapolis on October 1, 1960. His chief complaints were pain in the left hip and anterior left thigh since June, 1960, and weakness in the left lower limb for about one week.

A diagnosis of diabetes mellitus had been made in early June, 1960, when the patient complained of weakness and polyuria to his family physician. Treatment at that time consisted of a diabetic diet and 0.5 gm. of tolbutamide daily. After about a week of therapy the patient noted the onset of a deep, aching pain in his left hip. Soon the pain began to radiate to the anterior portion of the left thigh and was accompanied by some burning sensations at the left ankle. The pain never seemed to disappear completely. The pain was most severe at night and was relieved by walking. The patient had been impotent for several years. He had noted vertigo on arising from the recumbent position for about six months prior to admission and had been troubled with nocturnal diarrhea for several weeks. Although he had tested his urine almost daily for sugar, he had never obtained a positive test, but unfortunately, all these examinations were performed on early morning specimens. His weight loss since June, 1960, amounted to about 30 pounds.

On admission the patient was noted to be a nervous, thin white male who walked with a noticeable limp due to an inability to flex the left thigh well or keep the leg extended. There were no tremors and no fasciculations noted. There was weakness and atrophy of the left quadriceps and weakness of the left psoas. The left patellar reflex was absent. The right patellar jerk was normal. The ankle jerks were present on admission, but both were absent a few days later. There was spotty loss of light touch and pinprick sensation over the sciatic and femoral distributions of the left lower limb. There was a patch of hypalgesia on the medial aspect of the left forearm. Vibratory sensation was diminished over the left lower limb. Romberg's sign was absent. The remainder of the neurological examination was unremarkable except that temperature sensation was diminished over the left lower limb. Blood pressure was 155/90 in the recumbent position and fell to 128/88 in the standing position. There was a right indirect inguinal hernia. The fingers were thought to be minimally clubbed.

Laboratory Studies and Diagnosis

Roentgenographic studies of the spine and chest were normal. Electromyography of the left quadriceps, tibialis anterior, and peroneal muscle groups showed "some peripheral nerve damage." Lumbar puncture was normal with respect to mechanics, cells, serology and sugar content. The cerebrospinal fluid protein was elevated to 74 mg. per 100 ml. Phenosulfonphthalein dye excretion was 24% in 15 minutes. Gastric analysis showed 18 degrees of free acid and 30 degrees of total acid. Serum alkaline and acid phosphatase were normal.

Examination of the blood revealed a white blood cell count of 9000 with a normal differential. Hemoglobin was 17 gm. per 100 ml. Examination of the urine revealed 3-4 white blood cells per high-power field and a trace of albumin. There was no sugar in the urine. The blood serology was negative. An oral glucose tolerance test showed a fasting blood sugar of 148 mg.; after a half

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hour it was 198 mg., after one hour it was 247 mg., after two hours it was 249 mg., after three hours it was 225 mg. and after four hours it was 163 mg. per 100 ml. The urine showed sugar after the two, three, and four hour specimens.

A diagnosis of diabetes mellitus with mononeuritis multiplex was made. With a regimen of diabetic diet, graded exercises, and vitamin B_{12} injections (30 micrograms daily), the pain gradually disappeared, and the patellar reflex returned in two weeks.

Insulin Allergies

The earliest description of diabetic neuropathy noted by this author is that by Raven (1887).[1] The patient was a 65-year-old woman in whom "the more common incidences of diabetes were absent, but the urine was of high specific gravity, and persistently saccharine." The patient had absence of patellar jerks, but these returned with diet and rest alone.

According to Joslin[2] the earliest description of diabetic neuropathy is that by Marchal de Calvi who in 1864 noted that severe restriction of diet was more likely to precipitate sciatica than allowing the patient to have some glycosuria. It may be argued that the lack of insulin therapy was at fault in the early cases and the presently described one. However, Jordan[3] has found the institution of insulin therapy to have caused the onset of neuropathies. He can offer no other explanation and is forced to attribute many of these to insulin, possibly an allergic effect.

Although Rundles[4] noted that neuropathy was particularly prone to develop in diabetic patients who were poorly controlled, 56% of his patients never had coma, acidosis or ketosis so far as could be ascertained. Root in Joslin's book states that most diabetic patients who develop neuropathy basically have only mild or moderate diabetes, but the diabetes has been under poor control in most instances.[5]

More recently, Ellenberg[6] has noted that diabetic neuropathy may be precipitated by diabetic control. In three cases the onset of diabetic neuropathy followed the control of hyperglycemia and glycosuria with tolbutamide. The drug itself was suspected as being a toxic agent, but several factors absolved it. "The neuropathy in these circumstances was identical with the recognized forms of diabetic neuropathy, including symptoms, signs and course; the neurological picture improved and symptoms disappeared despite the continued use of tolbutamide; and similar experiences have been reported with control of diabetes by insulin or dietary measures."[7]

The question has been raised about viral infections precipitating an exacerbation of diabetes mellitus with neurological findings. Ozker[8] makes the point that the neuropathy would occur much earlier in the course of the illness if it were due to a nonspecific viral infection. He has reported the results of viral complement fixation studies of cerebrospinal fluid from those with diabetic neuropathy as being negative.

Bronchogenic Carcinoma

In attempting to define treatment the lesion should be defined first, but in diabetic neuropathy this has not been done. The patient presented in this paper could have had the same neurological findings on the basis of other pathology. For instance, Heathfield,[9] Brain,[10] and Henson and Russell[11] have described a neuropathy based on carcinomatous involvement of the lung. The patient described herein, with a history of smoking two packs of cigarettes per day for more than 20 years and with weight loss and clubbing of the fingers was suspected of having bronchogenic carcinoma. It was necessary to examine his sputa for malignant cells despite the normal chest roentgenograms. It is interesting that diabetes mellitus and bronchogenic carcinoma may present neuropathies which may be mistaken one for the other. Both types of neuropathy usually are manifested by an increase in cerebrospinal fluid protein.

The differential diagnosis of diabetic neuropathy is based upon laboratory studies. The imitators, according to Garland,[12] are "polyarteritis nodosa, syphilitic amyotrophy or motor neuron disease."

But what is the basic pathological lesion of diabetic neuropathy? Some argue for a metabolic defect affecting nervous tissue; others are fairly certain that the neuro-

logical lesions are on the basis of vascular lesions. All ultimately agree that the final answer is not known. Diabetic neuropathy should be regarded as a concomitant and integral feature of diabetes mellitus.[13]

Insulin Must Be Given

Fagerberg[14] has recently shown the frequency of deposits of PAS-staining material in the arteries of the sural nerve in diabetes and raises the case for ischemia. But Pickering[15] effectively counters with evidence from experiments showing that the order of loss of nervous modalities is different when brought about by ischemia than when brought about by diabetes. The arm in response to ischemia shows loss of touch and sense of position early, temperature and pain and pilomotor activity are maintained longer.

Thompson[16] brings out the similarity between thiamin deficiency neuropathy and diabetic neuropathy but shows that there are normal thiamin excretion rates in diabetic persons with and without neuropathy. Joslin[17] believes that the major defect in diabetes is impaired phosphorylation of certain substrates including thiamin, creatinine and possibly riboflavin. There thus may be an effective deficiency of thiamin.

Recent experiments by Hall[18] have indicated that the ability of the mitochondria to carry on oxidative phosphorylation is depressed in the diabetic animal and that insulin *in vitro* and *in vivo* is effective in correcting the defect. Since oxidative phosphorylation is well known to be necessary for proper functioning of nervous tissue, his experiments lend powerful logic to the axiom of always giving insulin to those with diabetic neuropathy.

Most diabeticians today feel that insulin is a necessary part of the treatment of diabetic neuropathy. Ricketts[19] states, "True diabetic neuritis while sometimes seen in patients with mild diabetes, occurs most often and severely in the presence of poor levels of control, and ordinarily recovery does not take place without careful regulation of diet and insulin." Joslin[20] concurs regarding the therapy of diabetic neuropathy stating, "Insulin should always be given."

Sancetta,[21] trying vitamin B_{12} injections on a series of 12 diabetic patients with neuropathy, found that all showed at least some improvement with insulin administration, diet, and vitamin B_{12} to the exclusion of other therapy. He recommends 15 to 30 micrograms of vitamin B_{12} daily for a period of one or two weeks to be followed by weekly or bi-weekly injections for maintenance. Much larger doses may be needed for more severe cases. He feels that vitamin B_{12} exerts a specific though unknown effect on the deranged nervous tissue metabolism in diabetic patients.

A less standard type of therapy is suggested by Kempner.[22] He believes most of the diabetic complications to be caused by vascular changes which can be favorably treated by means of his rice diet.

Complete Diabetic Control Essential

The outstanding symptom of diabetic neuritis is pain, which may be superficial or deep, aching or lancinating. The most frequent finding is decreased vibratory sensation. Paresthesias are common. The ankle jerks are absent in about 80% (one or both sides) and the patellar jerks are absent in about 50% (one or both sides). Cerebrospinal fluid protein is elevated in 72% of cases, and Joslin mentions cases in which it is as high as 435 mg. and 440 mg. per 100 ml.[23] Postural hypotension and tachycardia are characteristic. Atonic bladder occurred in about one-fourth of patients.[24] According to Rubin[25] about 70% of men with diabetes of less than one year's duration suffer from impotence.

There is some disagreement as to the most common of the cranial nerve lesions. In Joslin's book the facial nerve is said to be most commonly involved.[26] However, Dreyfus et al.[27] believe that the third and sixth cranial nerves are most frequently involved. These authors and King[28] make note of the fact that there is usually sparing of the pupillary reflex when there is diabetic involvement of the oculomotor nerve. The retention of pupilloconstrictor function probably is due to sparing of fibers in the subepineural or peripheral portion of the nerve. It is worthy of note that these superficial fibers would be the first to be affected

when external pressure disrupts oculomotor function, so that in cases of increased intracranial pressure a defect in pupilloconstrictor function is most prominent.[29]

This paper tends to support the view of Ellenberg[30] that neuropathy in diabetes may be independent of the degree and duration of diabetes, but the possible role of prolonged poor diabetic control cannot be denied.

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REFERENCES

1. Raven, T. F.: Disappearance and return of the knee jerks in diabetes. *Brit. Med. J.*, 1:303, 1887.
2. Joslin, E. P., Root, H. F., White, P., Marble, A.: *The Treatment of Diabetes Mellitus*, 10th Ed., Lea & Febiger, Philadelphia, p. 485, 1959.
3. Jordan, W. R.: Neuritic manifestations in diabetes mellitus. *Arch. Int. Med.*, 57:307, 1936.
4. Rundles, R. W.: Diabetic neuropathy. *Medicine*, 24:110-60, 1945.
5. Joslin, E. P. et al., p. 486, *supra* ref. 2.
6. Ellenberg, M.: Diabetic neuropathy precipitated by diabetic control. *J.A.M.A.* 169:1755-7, April 11, 1959.
7. *Ibid.*
8. Ozker, R.: Acute polyneuritis following severe diabetic acidosis. *Ohio M. J.*, 55:1521-22, Nov., 1959.
9. Heathfield, K.: Peripheral neuropathy and myopathy associated with bronchogenic carcinoma. *Brain*, 77:122-37, 1954.
10. Brain, R., Henson, R. A.: Neurological syndromes associated with carcinoma: carcinomatous myopathies. *Lancet*, 2:971-5, 1958.
11. Henson, R. A., Russell, D. S., Wilkerson, M.: Carcinomatous neuropathy and myopathy: clinical and pathologic study. *Brain* 77:82-121, 1954.
12. Garland, H. T.: Neurological complications of diabetes mellitus: clinical aspects. *Proc. Roy. Soc. Med.*, 53:137-41, Feb., 1960.
13. Aring, C. D.: Diabetic neuritis. *AMA Arch. Neurology*, 2:211, Feb., 1960.
14. Fagerberg, S.: Diabetic neuropathy, a clinical and histologic study on the significance of vascular affections. *Acta Med. Scandinav.*, 164 (Supp. 345): 1-97, 1959.
15. Pickering, G.: The anatomical and functional aspects of the neurological lesions of diabetes. *Proc. Roy. Soc. Med.*, 53:142-3, Feb., 1960.
16. Thompson, R.: Pyruvate metabolism in diabetic neuropathy. *Proc. Roy. Soc. Med.*, 53:143-6, Feb., 1960.
17. Joslin, E. P. et al., p. 485, *supra* ref. 2.
18. Hall, J.: The effects of insulin on oxidative phosphorylation in normal and diabetic mitochondria. *J. Biol. Chem.*, 235:1536-9, May, 1960.
19. Ricketts, H. T.: *Diabetes Mellitus.* Charles Thomas, Springfield, Ill., p. 9, 1955.
20. Joslin, E. P. et al., p. 486, *supra* ref. 2.
21. Sancetta, S.: The use of vitamin B_{12} in the management of the neurologic complications of diabetes mellitus. *Ann. Int. Med.*, 85:1028, 1951.
22. Kempner, W.: Effect of rice diet on diabetes mellitus. *Post Grad. Med.*, 24:359-71, Oct., 1958.
23. Joslin, E. P. et al., p. 492, *supra* ref. 2.
24. *Ibid.* p. 495.
25. Rubin, A.: Impotence and diabetes mellitus. *J.A.M.A.*, 168:498-500, Oct. 4, 1958.
26. Joslin, E. P. et al., p. 494, *supra* ref. 2.
27. Dreyfus, P., Hakim, S., Adams, R.: Diabetic ophthalmoplegia. *AMA Arch. Neurol. and Psych.*, 77:337-49, 1957.
28. King, F. P.: Paralysis of the extraocular muscles in diabetes. *AMA Arch. Int. Med.*, 104:318-22, Aug., 1959.
29. Dreyfus, P., Hakim, S., Adams, R.: Diabetic ophthalmoplegia. *AMA Arch. Neurol. and Psych.*, 77:337-49, 1957.
30. Ellenberg, M. Diabetic neuropathy: consideration of factors in onset. *Ann. Int. Med.*, 52:1067-75, May, 1960. ◄

A Review of the Literature

The Pathogenesis of Syringomyelia

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SYRINGOMYELIA, as usually considered, is a slowly progressive, degenerative process involving the spinal cord or medulla, or both. When the condition is largely within the medulla the term "syringobulbia" is applied. The term "syringomyelia" denotes cavity formation in the cord. However, the various authors in the literature use the term quite differently, often considering their own theory of pathogenesis to be "true syringomyelia" to differentiate it from other possible causes.

Aside from cavitation of the cord, an often confused condition is simple dilation of the central canal, hydromyelia. This confusion of terminology, along with a paucity of good research, has left the condition, syringomyelia, largely unsettled with regard to its pathogenesis. Considering this present state of uncertainty, it seems necessary, for the purposes of this paper, to consider any cavitation of the cord to be syringomyelia. Several aspects of this condition will be considered here, but special attention will be given to the pathogenesis of cord cavitation.

A historical review of syringomyelia is given by several authors.[3, 33, 36] Etienne, in the middle of the 16th century, observed cavitation of the cord and is now given credit for its earliest recognition. Ollivier, in 1837, was the first to suggest the term "syringomyelia."

The incidence of syringomyelia is not high. Kaelber[16] was able to find only 19 proven cases in the files of Philadelphia General Hospital from the years 1921 to 1950. According to Poser,[31] only about 400 cases have been diagnosed at the Neurological Institute of New York out of the 40,000 admissions during the past 20 years. Among the 6,800 admissions to the National Hospital in England during the years 1909 to 1925, only 115 cases of syringomyelia were proven.[36] Scott[32] notes that only 37% of Schlesinger's 190 cases were women. Nielson[27] found the average age of onset to be 32.8 years.

Pathology

In general, a wide variety of pathological changes are possible, depending on the process responsible for the cavitation.

Grossly, the meninges may be thickened, opaque and contain many cysts if arachnoiditis was the basic process. In other cases the meninges may be normal in appearance.[19] The cord itself may appear normal or may show outward appearances of the cavitation present. The cavity or cavities are usually unilateral, filled with a clear fluid, dorsal to the ventral commissure and in the gray matter.[32]

There is a great deal of variation possible in the size and shape of the cavity. There are numerous accounts in the literature of cavities so large that the cord is barely held together by the remaining tissue, while other descriptions are of cavities of microscopic size. Regions involved, in order of frequency, are: cervical-thoracic, thoracolumbar, lumbosacral, and bulbar.[32]

Many of the descriptions given of the microscopic appearance of the walls of syringomyelic cavities picture the structure to be a relatively acellular gliosis or a fibrosis, or both. Indeed, some writers[4, 14] consider this gliosis primary to the process of cavitation. The presence of ependymal cells in conjunction with this gliosis is a frequently mentioned occurrence.[4, 29, 32, 33] This has formed the basis for the popular theories of the pathogenesis of cavitation

which are concerned with ependyneal cell rests or proliferation of central canal cells.

Fibrosis, when present, is generally regarded as a secondary, or quiescent stage in this process.[14, 32] The cavity may be avascular or may present extensive vascularization of its walls and lumen. Several authors have noted the frequency with which these vessels have marked adventitial proliferation.[14, 29, 32] Hassin[14] considered these pathognomonic of syringomyelia. None of the other authors reviewed agree with this idea.

Pathogenesis

Heredity seems to have a definite relationship to some cases of syringomyelia. Mulvey and Lea[24] observed 37 members in three generations of a family in which nine members had a condition they thought to be dysraphia. This condition, considered by many to be a form of syringomyelia, in this case did, indeed, produce a clinical picture of syringomyelia. Dissociation of sensation, motor impairment and trophic disturbances were noted.

Van Epps and Kerr[35] found four families displaying 26 cases of what they called "familial lumbrosacral syringomyelia." They found 71 additional cases in the literature showing this hereditary tendency. Their cases presented the following findings: changes in vibratory sense, diminished deep tendon reflexes, trophic disturbances and bony deformities of the feet. There are numerous other accounts in the literature showing heredity to be a factor in syringomyelia.

The association of syringomyelia with various congenital anomalies has often been noted. Some consider this evidence for the origin of syringomyelia in a congenital process. Nielson,[27] in analyzing 26 cases showing the syringomyelic syndrome, found six cases manifesting an associated congenital anomaly: platybasia, Kippl-Feil syndrome, pilonidal cyst, malformation of a hip, kyphoscoliosis and retinitis pigmentosa. Gustafson and Oldberg[13] describe five proven cases of platybasia, four of which had an associated syringomyelic syndrome. Chamberlin[6] found four cases of platybasia, three of which displayed the syndrome.

Abbott,[1] in operating on an infant with spina bifida and retardation of growth of one lower extremity, removed a piece of cord from the region of the conus which showed all the histological characteristics of syringomyelia. Du Toit[10] observed a middle-aged male with congenital elevation of the scapula, shortness of the neck, and scoliosis (Sprengel's deformity) as well as clinical manifestations of syringomyelia. This relationship has been noted before.

Associated Congenital Anomalies

The above congenital lesions are but a few examples of the more common anomalies associated with syringomyelia. Other associated congenital conditions seen in the literature include: cervical rib, oxycephaly, hydrocephalus, hydromyelia, various forms of myelodysplasia, meningocele and others. It occurs to this writer that most of the above anomalies can be placed into one of two categories.

One category would include such conditions as platybasia, Kippl-Feil syndrome (brevicollis), and the various changes in spinal curvature such as kyphoscoliosis or Sprengel's deformity. From what is known about the role of trauma and alterations in blood supply to the cord, it is not necessary to associate these with syringomyelia by a common embryological maldevelopment.

A second category of conditions would include the conditions seemingly associated to the dysraphic state (status dysraphicus) in which there is faulty closure of the neural tube. Spina bifida, meningocele, hydromyelia, and the various forms of myelodysplasia are examples of such a state. It is the occurrence of syringomyelia with the various dysraphic conditions that lays the foundation for the theory of embryonic cell rests as the cause of cavitation of the cord. The association of syringomyelia with hydrocephalus does not immediately fit either of these groups.

And, indeed, if the concept of Gardner[11, 12] is correct, hydrocephalus represents still one more possible method of cord cavitation. He approaches the problem from the point of embryology. Early on the embryonic neural tube is a closed structure and depends on the permeability of the rhombic roof for the escape of ventricular fluid. Should this roof

be impermeable throughout embryonic life and there be an incomplete opening of the foramina of Luschka and Magendie later, there will have been a constant forcing of cerebrospinal fluid into the cord over a long period of time. The result would be hydromyelia, and eventually syringomyelia, as this fluid is forced into the substance of the cord. He accounts for the late onset saying simply that this is a slow process.

Hydrocephalus an Infrequent Cause

Objective evidence for this theory is the resemblance of the cavity fluid to the cerebrospinal fluid, the ability to find ventricular-injected dye in these cavities and the impression of improvement following surgical opening of the foramina of Luschka and Magendie. He leaves the impression that this is practically the only method of cavity formation: an idea that is hardly tenable at this stage of our knowledge.

Alpers and Comroe[2] were able to demonstrate a case showing a syrinx in the cervical and upper thoracic region in conjunction with a choked disc and an increase in intracranial pressure. Pathological findings here included the finding of marked hydrocephalus with dilation of the third ventricle and a fibrotic thickening of the roof of the fourth ventricle. These authors were able to find only four cases in the literature in which syringomyelia could be linked to choked disc and only two of these could be proven to be due to hydrocephalus. Thus, the theory of Gardner not only will not explain all cases of syringomyelia, but indeed, does not even represent a common occurrence.

One of the most popular theories of cavity formation concerns embryonic cell rests in the cord. Most writers consider these cells to be ependyma or ependymal spongioblasts.[4, 20, 32, 33] The origin of these cells as alluded to above, is considered to be in the improper closure of the neural tube.[3, 20] Scott[32] feels that occasionally the ependymal cells of the central canal undergo proliferation and eventually cause cavitation.

Netsky[29] feels that the proliferation of ependymal cells leading to the condition of syringomyelia may be a response to various environmental occurrences such as trauma. Several authors describe cases in which there were a great number of ependymal cell rests scattered throughout the cord substance.[20, 22, 33] In favor of this theory is the fact that cavities were found in association with these cells and that there were all degrees of cavitation present simultaneously.

Roentgenotherapy Beneficial

Mackay and Favill[20] cite Ostertag who was able to follow a family of rabbits, all descending from the same animal, in which many in the succeeding generations had a progressive median dorsal septum gliosis, some with cavities and some without. One further supporting concept is presented by Obrein[30] who cites numerous cases, some his own, who have benefited both subjectively and objectively from roentgenotherapy. He considers the mechanism of this improvement to be the radiosensitivity of these "young" cells. Netsky,[29] although he considers this theory one of the true mechanisms of cavitation, feels that it is not the only cause. He points out that in the majority of cases there is no actual accompanying congenital anomaly, that cavities are most often at right angles to the cord, that the cavities are most commonly not in the midline and also that they most often involve the gray matter. All of these points do, indeed, place some question on anomalous tube closure as the single cause of cavitation.

Kernohan[17] studied and attempted to classify 51 tumors of the spinal cord. In five of the nine cases of intramedullary tumors there was associated cavity formation. There was no correlation between the type of tumor and cavities. Kinney and Fitzgerald[18] point out the relative frequency of the association between hemangioblastoma and syringomyelia.

There is an unmistakable relationship between embarrassment of blood supply to the cord and cavity formation. Various processes may enter into this alteration of blood flow: arachnoiditis, atherosclerosis, protrusion of intervertebral discs, expanding lesions outside of the cord, thrombosis of spinal vessels and trauma.

Arachnoiditis May Lead to Cavitation

A number of authors consider adhesive arachnoiditis one of the main processes of the circulatory embarrassment leading to cavitation. Netsky[28] thinks circulatory alteration is one method by which arachnoiditis may cause syrinx formation but also lists direct compression and fixation of the cord as possible mechanisms. He presents a case of arachnoiditis which occurred following repeated laminectomies which subsequently was complicated by fibrosis interfering with blood supply. The microscopic picture was one of progressive infarction leading to cavitation.

Nelson[25] was able to follow a case of arachnoiditis prior to its beginning, during its course and finally at autopsy. He noted that the symptoms of intramedullary disease began following obliteration of the subarachnoid space. His ideas of the formation of cavitation in such cases agree, in general, with Netsky, but he does not feel that direct compression can lead to syrinx formation.

Lubin[19] presents an interesting case showing two stages of arachnoiditis in different areas of the cord. In the thoracic cord the process was active and without fibrosis. Here, there were no cavities. In the cervical portion of the cord, fibrosis had begun and cavities were found. Support of the relationship implied by the above observations is to be found in the paper by McLaurin.[22] He and his associates injected Kaolin into the cisterns of 26 dogs and Pantopaque into 13 other dogs by the same method. Some dogs died in as little as nine days. Others were sacrificed at various succeeding intervals, none living more than four and one half months.

Arachnoiditis developed in all of the animals, and some signs of syringomyelia could be observed in the animals living the longer periods of time. The cords and brains were examined and the progress of arachnoiditis and cavitation could be followed. The earliest change noted was necrosis and softening of areas of the posterior half of the cord. The next stage was that of small slit-like defects in relation to the posterior horns. The final stage seen occurred after about five weeks at which time there was definite cavitation.

The Traumatic Role

Tauber and Langworthy[34] showed a possible role of trauma in syringomyelia. They operated on 19 cats and damaged either the dorsal half of the cord or the ventral half using silk ligatures. Damage to the dorsal half of the cord produced no more than local changes. Ventral damage produced cavitation of the ventral portion of the posterior horns and adjacent areas. This, the authors point out, is an area supplied only by the anterior spinal artery. They cited Holmes who observed the cords of soldiers who had had injury to the spinal column. In general, the cavities found in these men closely resemble those produced experimentally.

Mair and Druckman[21] carefully analyzed the clinical course and pathological findings in four cases of protrusion of cervical intervertebral discs. In only one case was cord cavitation found, but here too, the changes, histologically, resembled those seen in ischemia and, in general, followed the distribution of the anterior spinal artery. Nielson[26] also points out the role of intervertebral disc protrusion in syrinx formation.

Davison and Keschner[9] describe two cases showing that expanding lesions of the cord may cause cavitation by circulatory interference. Davison and associates[8] found two cases of cord cavitation considered to be due to atherosclerosis of cord arteries. These cavities histologically did not have the glial proliferation characteristic of other types of syrinx formation. Chung[7] describes two cases of medullary softening in response to syphilitic thrombosis of cord arteries.

Hauser[15] followed the case of a woman who had two episodes of neurological symptoms which were alleviated by evacuation of syringomyelic cavities. He considered these cavities to be the result of medullary infarction subsequent to the thrombosis of abnormal, tortuous vessels.

Brain and Wilkinson[5] discuss the relationship between syringomyelia and cervical arthropathy. Meyer[23] describes peripheral arthropathy occurring following cord cavitation. Neither of these relationships although commonly reported, aid in clarifying the pathogenesis of syringomyelia.

Representative Cases

The following two cases were drawn from the autopsy files of the Indiana University School of Medicine. They are included to give examples of the two common basic processes leading to syrinx formation as discussed above. The first is presented to show a form of arachnoiditis with subsequent vascular embarrassment leading to cavitation. The second is included to illustrate syrinx formation in conjunction with embryonic cell rests associated with a form of the dysraphic state.

Case 1. A 37-year-old white man was admitted with headache, nausea and vomiting, staggering gait and stiff neck of one weeks duration. Examination showed him to be semistuporous with absence of abdominal, cremasteric, knee and ankle reflexes but with preservation of deep pain sensation over the lower extremities. A febrile, downhill course lead to his demise shortly after his admission.

At autopsy the area from D_4 to D_8 was explored and showed an organizing exudate in the subarachnoid space. The cord and inner meninges were swollen to fill the dura. Microscopic examination demonstrated a typical tuberculous meningitis with periarteritis and obliterating endarteritis. The dorsal portion of the cord contained an area of softening and cavitation.

Case 2. A 9-month-old white male was admitted with seizures and opisthotonus. He had been born with an inoperable sacral meningomyelocele and spina bifida. This subsequently became infected and advanced to a meningitis. The infant died following a short febrile course.

At autopsy the thoracic cord was tubular in shape and appeared to contain a cavity filled with fluid. Microscopically this cavity was seen to be lined with ependymal cells. Surrounding this the gray matter was distorted and showed degenerative changes secondary to compression. The report made specific note that there was no inflammatory reaction connected to this process.

Conclusions

This survey has not succeeded in demonstrating a single pathological process to explain the condition syringomyelia. Accordingly, it has served to emphasize the multiplicity of its origin. From this, several generalizations as well as a broad classification emerge. These, perhaps, will help clarify the pathogenesis of this disease. They are as follows:

1. Heredity seems to play a part in some cases.

2. The condition frequently is associated with other congenital anomalies of the central nervous system. These seem to fall into two broad categories and perhaps can be placed in the classification below.

3. Most cases when considered carefully as to their basic processes seem to fall into two etiological groups:

   a. The first includes those cases in which cavity formation is secondary to interruption of blood supply to the cord. This may account for the finding of syringomyelia associated with such congenital anomalies as platybasia, brevicollis, kyphoscoliosis and others. It could also account for cavitation occurring secondary to trauma, arachnoiditis, disc protrusion, syphilis, vascular lesions and others.

   b. The second includes those cases in which cavity formation is associated with anomalous cell "rests." The cavitation of such cell groups may account for the occurrence of syringomyelia in the dysraphic conditions.

4. Two cases are presented to illustrate the two basic processes leading to cord cavitation.

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REFERENCES

1. Abbott, W. D., Hill, F. L., Kahler, J. E.: Syringomyelia and spina bifida. *Dis. Nerv. System,* 3:135-137, 1942.

2. Alpers, B. J., Comroe, B. I.: Syringomyelia with choked disc. *J. Nerv. and Ment. Dis.,* 73:577-586, 1931.

3. Baker, A. B.: *Clinical Neurology,* Vol. 2. New York: Harper and Bros., 1955, pp. 1361-1377.

4. Bernstein, E. P., Horwitt, S.: Syringomyelia with pathological findings. *Med. Rec.,* 84:698-701, 1913.

5. Brain, R., Wilkinson, M.: Cervical arthropathy

in syringomyelia, tabes dorsalis and diabetes. *Brain*, 81:278-289, 1958.

6. Chamberlin, W. E.: Basilar impression (platybasia). *Yale J. Biol. and Med.*, 11:487-496, 1939.
7. Chung, M-F.: Thrombosis of the spinal vessels in sudden syphilitic paraplegia. *AMA Arch. Neurol. and Psychiat.*, 16:761-771, 1926.
8. Davison, C., Brock, S., Goodhart, S. P.: Atherosclerotic myelopathy with syrinx formation. *AMA Arch. Neurol. and Psychiat.*, 50:565-574, 1943.
9. Davison, C., Keschner, M.: Myelitic and myelopathic lesions. *AMA Arch. Neurol and Psychiat.*, 30:1074-1085, 1933.
10. DuToit, F.: A case of congenital elevation of the scapula (Sprengel's deformity) with defect of the cervical spine associated with syringomyelia. *Brain*, 54:421-429, 1931.
11. Gardner, W. J., Angel, J.: The cause of syringomyelia and its surgical treatment. *Cleveland Clin. Quart.*, 25:4-8, 1958.
12. Gardner, W. J., Karnosh, L. S., Angel, J.: Syringomyelia. *Tr. Am. Neurol. A.*, 144-145, 1957.
13. Gustafson, W. A., Oldberg, E.: Neurologic significance of Platybasia. *AMA Arch. Neurol. and Psychiat.*, 44:1184-1198, 1940.
14. Hassin, G. B.: A contribution to the histopathology and histogenesis of syringomyelia. *AMA Arch. Neurol. and Psychiat.*, 3:130-146, 1920.
15. Hauser, A., Ehni, G., Hauser, H. M.: Syringomyelia: Report of treatment of an unusual case. *South M. J.*, 50:259-264, 1957.
16. Kaelber, W. W.: Dissimilar lesions of the nervous system: brain tumor and syringomyelia. *J. Neuropath. and Exper. Neurol.*, 11:79-82, 1952.
17. Kernohan, J. W., Woltman, H. W., Adson, A. W.: Intramedullary tumors of the spinal cord. *AMA Arch. Neurol. and Psychiat.*, 25:679-701, 1931.
18. Kinney, T. D., Fitzgerald, P. J.: Lindau-von-Hippel disease with hemangioblastoma of the spinal cord and syringomyelia. *AMA Arch. Path.*, 43:439-455, 1947.
19. Lubin, A. J.: Adhesive spinal arachnoiditis as a cause of intramedullary cavitation. *AMA Arch. Neurol. and Psychiat.*, 44:409-420, 1940.
20. Mackay, R. P., Favill, J.: Syringomyelia and intramedullary tumor of the spinal cord. *AMA Arch. Neurol. and Psychiat.*, 33:1255-1278, 1935.
21. Mair, W. G. P., Druckman, R.: The pathology of spinal cord lesions and their relation to the clinical features in protrusion of cervical intervertebral discs. *Brain*, 76:70-91, 1953.
22. McLaurin, R. L., Bailey, O. T., Schurr, P. H., Ingraham, F. D.: Myelomalacia and multiple cavitations of spinal cord secondary to adhesive arachnoiditis. *AMA Arch. Path.*, 57:138-145, 1954.
23. Meyer, G. A., Stein, J., Poppel, M. H.: Rapid osseous changes in syringomyelia. *Radiology*, 69:415-418, 1957.
24. Mulvey, B. E., Lea, A. R.: Familial syringomyelia and status dysraphicus. *Ann. Int. Med.*, 16:966-994, 1942.
25. Nelson, J.: Intramedullary cavitation resulting from adhesive spinal arachnoiditis. *AMA Arch. Neurol. and Psychiat.*, 50:1-7, 1943.
26. Nielson, J. M.: Progressive course of arachnoiditis simulating syringomyelia. *Bull. Los Angeles Neurol. Soc.*, 18:127-130, 1953.
27. Nielson, J. M.: The syringomyelic syndrome. *Bull. Los Angeles Neurol. Soc.*, 22:151-158, 1957.
28. Netsky, M. G.: Diffuse meningomatosis, arachnoidal fibrosis, and syringomyelia. *AMA Arch. Neurol. and Psychiat.*, 78:553-561, 1957.
29. Netsky, M. G.: Syringomyelia. *AMA Arch. Neurol. and Psychiat.*, 70:741-777, 1953.
30. Obrein, F. W.: Roentgen therapy in syringomyelia. *Radiology*, 24:16-19, 1935.
31. Poser, C. M.: *The Relationship Between Syringomyelia and Neoplasm.* Charles C Thomas, Springfield, 1956.
32. Scott, E., LeFever, H., Oliver, M. A.: Syringomyelia and syringobulbia. *Ohio M. J.*, 30:213-223, 1934.
33. Tamake, K., Lubin, A. J.: Pathogenesis of syringomyelia. *AMA Arch. Neurol. and Psychiat.*, 40:748-761, 1938.
34. Tauber, E. S., Langworthy, O. R.: A study of syringomyelia and the formation of cavities in the spinal cord. *J. Nerv. and Ment. Dis.*, 81:245-264, 1935.
35. Van Epps, C., Kerr, H. D.: Familial lumbosacral syringomyelia. *Radiology*, 35:160-173, 1940.
36. Wilson, S. A. K., Bruce, A. N.: *Neurology*, Vol. 2, Williams and Wilkins Co., Baltimore, 1955, pp. 1187-1202. ◄

Education of The Medical Student in Psychiatry

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FOR THE PAST FEW YEARS there has been much open discussion concerning psychiatry in general. This discussion seems, for the most part, to be centered around the increasing need for more psychiatrists and psychiatric personnel. Without a doubt, there is a definite need for more personnel but I feel that a much more basic need is for improved and more practical instruction in the medical schools.

The courses offered in medicine, surgery, pediatrics and obstetrics have improved considerably in order to better equip the new general practitioner to handle the patients categorically placed into one of these fields. The results are quite obvious. We rarely see a patient with eclampsia or smallpox and we rarely see a death attributed to an infectious disease. Many children with a congenital abnormality which definitely placed a limit on their life-span now lead normal lives due to new developments in surgery and the instruction received by the general practitioner regarding the early recognition of these correctable abnormalities.

In psychiatric problems just as in surgery, medicine, pediatrics and obstetrics it is usually the general practitioner that has the first opportunity to note "abnormal" behavior in his patients. The level of understanding that newly graduated physicians now have concerning these problems has improved tremendously in the past few years due mostly to the better understanding of mental mechanisms by the faculty and therefore by the student. But this is not enough.

"Iatrogenic" Mental Disorders

As mentioned above, new physicians are considerably better equipped in the early signs and symptoms of mental disease and *are* better equipped than their physician fathers to understand the underlying problem and how it can be resolved. But there is still a definite need for early diagnosis and understanding of the mental disorders seen secondarily to an organic disease or to treatment of the organic disease, i.e., iatrogenic. Included in this latter group are the depressions seen when the rauwolfia alkaloids are used over a long period of time, the "habituation" to the medications prescribed by the doctor and the anxiety produced by anorexic medication.

More important still, than this small group, I would like to include a group of mental illnesses which are also "iatrogenic." In this group we see probably most of the neuroses and psychoses seen in general practice. I use the word "iatrogenic" because they are truly produced by the doctor. Included in this group are: cardiac neurosis and psychosis seen in the patient after he is told that he has "heart disease," the depression seen in chronic diseases such as hypertension, and the hypochondria which develops in association with any disease. This list could be very long and should include cancer, emphysema, deformities and many others. These are patients which have definite organic diseases which must be treated but they are also patients who have an insidious development of emotional disturb-

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ances many of which may lead to frank psychosis.

Mental as well as Physical Check Up

These are the patients who will not receive any appreciable help by simply increasing the number of psychiatric personnel. The greatest need for improvement is in the areas of prevention and early diagnosis—by the general practitioner. Several classical examples of this need can be illustrated. A hypothetical 38-year-old male with a new house, automobile and three school children may accept the diagnosis of essential hypertension and learn to "live with it" but many of this type of patients do not accept this "fate." Learning that he has hypertension may be distressing enough to produce a frank psychosis in order to disown this condition but more commonly, the patient tries to follow the doctor's advice concerning medication and limitation of activity and then insidiously develops a neurosis such as depression. This may be produced by the medication alone. If the physician realizes the potential dangers when using, for instance, rauwolfia, the patient can be warned of the early signs of depression and told to report immediately when any appear.

This method has been used quite extensively at the Lilly Hypertension Clinic where the incidence of rauwolfia depression is less than that reported by others. If this type of "iatrogenic" problem does not develop, the patient may become "obsessed" with his sudden death from a vascular accident or with the future care for his family in case of early death. Again prevention is the most important "cure" for this problem and careful explanation by the physician will usually prevent this from happening. In all of these instances, the office calls cannot be just a casual recording of blood pressure once per month as is so many times the case, but must be an evaluation of the patient's mental condition as well as his cardiovascular condition.

Another "classical" example is the cardiac neurosis seen in the patient with heart disease whether it be a past myocardial infarction or a valvular problem. These patients are very prone to just "give up" which obviously would impair their productivity and activity needlessly. Again, it is the family doctor not the psychiatrist that first sees these patients and the rapport established is again all important. This condition is best "treated" by prevention, i.e., careful explanation and active rehabilitation of the patient with cardiac disease. I have used the term cardiac neurosis in a specific manner and not as the symptom-complex seen in the physically normal individual who develops neurocirculatory asthenia, etc.

I have also excluded the various psychophysiological disorders but in the same sense, the physician must always keep in mind the relationship between anxiety and peptic ulcer, ulcerative colitis, obesity, anorexia, rheumatoid arthritis, asthma, diabetes mellitus, menopausal syndromes, etc., all of which are definitely associated with psychiatry but are not usually the precipitating factor in a mental illness.

More Correlative Psychiatry Study Time

How does all of this correlate with the problem of education? In the psychophysiological disorders, the physician receives quite adequate education concerning the correlation between psychiatry and physiology but this is not so in the "iatrogenic" conditions mentioned earlier.

In studying this problem, I devised a table by which I have attempted to interpret the amount and type of psychiatric instruction received in the United States medical schools (Table 1). At a glance, one can see that the majority of time allotted for psychiatric instruction in a four year medical course is allocated to clinical and ward instruction. This phase is concerned with experience with both in-patients and outpatients as they would be seen by a psychiatrist. Most of these patients have been referred by a general practitioner who has noted the condition developing.

It is interesting to note that Dartmouth and Hahnemann medical schools do not require any time devoted to clinical and ward instruction but instead offer it as an elective and require all students to participate in 150 hours of correlative psychiatry in conjunc-

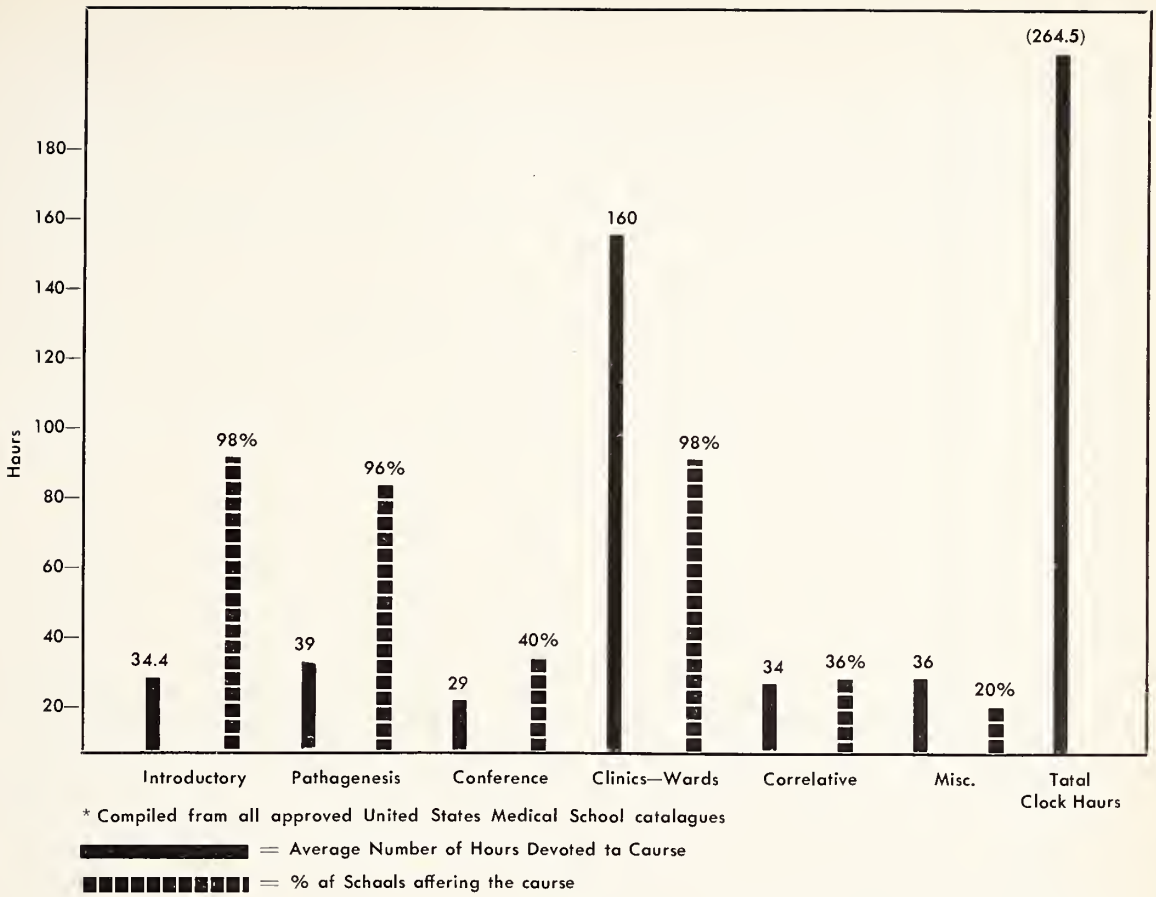


TABLE I

tion with the departments of medicine, pediatrics, OB-GYN and surgery.

Ninety-eight percent of the United States medical schools offer introductory courses and 96% offer courses dealing with the pathogenesis of psychiatric problems. About 20% of the schools offer courses which I have listed as miscellaneous. Included in this group are child psychiatry, and other sub-specialties which were offered separately. If a course was required which correlated several different fields with psychiatry, it was listed in the column marked "correlative." It is this group with which I am most concerned.

Only 36% of the schools offered this type of course. I feel that this is one of the main faults with our present educational system in medical schools. In this type of course the student sees, studies and discusses psychiatric problems associated with medical, surgical, pediatric, obstetric, gynecological and neurological diseases. The patients presented by each department do not have a major psychiatric problem but have psychiatric problems secondary to their major condition. In this way, the student obtains valuable "pearls" associated with each specific disease condition. The University of Washington offers 160 hours in this phase while 64% of the schools offer none. The average number of hours devoted to this phase of instruction in the 36% of the participating schools is 34 hours.

The general trend seems to be to increase the amount of time devoted to clinical experiences in psychiatry with only about 1/5 as much time spent in correlative psychiatry. If more time could be spent studying the type of psychiatric problems with which the general practitioner is routinely confronted, the burden of prevention, early diagnosis, and treatment would be greatly lessened on the psychiatrists and also the patient's productivity would be maintained with fewer days of hospitalization.

Summary

The major problem in psychiatry, as I see it, is the need to lessen the psychiatrist-patient load. This could be accomplished by better equipping the general practitioner in:

1. Prevention of the abnormal responses associated with many diseases by anticipation and careful explanation of the condition to the patient.

2. Early recognition of abnormal behavioral responses by again anticipation of the responses and also by careful evaluation of the patient's mental status with each office visit and then comparing the observations with previous observations. This need not be time consuming if only the physician would keep in mind the evaluation of the patient's mental status during the usual 10 or 15 minute interview.

3. A better understanding of the treatment of the early recognized abnormal responses.

By better equipping of the graduating general practitioner, many psychiatric conditions could be prevented, or recognized and treated early and hospitalization could, in the majority of the cases, be omitted or greatly shortened.

About Our Cover

The time of Thanksgiving . . . the day when the nation remembers with gratitude the struggles, tribulations and the victory over adversity of that small, resolute group of men and women who landed on those barren New England shores over 300 years ago. They had little in the way of material goods to help them settle in this great land, but the one thing they did have, in abundance, was unswervable determination to live and worship as free men in a society dedicated to equality and opportunity for all.

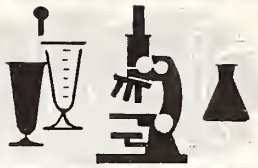
That first year was hard, just how hard is difficult for us, in the 20th century, to fully comprehend. But their courage and perseverance brought them safely through. On a cold, bleak day at the year's conclusion this dedicated band of pilgrims gathered to give thanks for their preservation and for the meager harvest wrested from the newly cleared land. It is right that we too should celebrate Thanksgiving, we have so much to be thankful for. But it is necessary that we should remain vigilant lest we lose those freedoms and opportunities that our forefathers struggled, and later, fought for. We cannot afford to sit back complacently and relax that vigil. At all costs we must fight to prevent government destroying the hard won rights of the individual. We must resist the efforts being made to wrap us all in a blanket of prescribed welfare care from cradle to grave; a blanket offering only cold comfort to a few and capable of suffocating the initiative of the multitude.

Such schemes, if allowed to come to fruition, will have far-reaching effects—the art and practice of medicine will tend to become static—barriers, in the realms of science, now on the verge of crumbling will remain standing through the slackening of attack by dedicated researchers who will be engaged in fighting far more frustrating, man-made barriers of red tape. It is up to all of us to be alert . . . to ward off legislation that threatens to halt the progress of science, to the detriment of all mankind . . . to prevent regimentation which will stifle ingenuity, individuality and original thinking.

In the midst of our Thanksgiving celebrations we might be wise to remember the words of John Quincy Adams: "Think of your forefathers! Think of your posterity!"

The photograph on this month's cover was taken by H. Armstrong Roberts of Philadelphia.—M. E. R.

Path-finder
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Will Tommy Bleed?

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THE ENORMOUS amount of research and progress in understanding coagulation disorders has left many of us in a state of confusion. The chapter on blood coagulation in the latest edition of a well known textbook (Miale—"Laboratory Medicine—Hematology," 1962) has a bibliography occupying 37 pages (!) of double spaced columns. Many new "factors" with a long list of synonyms, accelerators, activators, enzymes and co-enzymes have been discovered and the busy practitioner may have given up the attempt to fit the new facts and tests into the clinical picture. This is regrettable for we now possess—irrespective of the still controversial theoretical background—several valuable tools in detection of latent bleeders and investigation of hemorrhagic disorders.

The International Committee on Nomenclature of Blood Clotting Factors recommended the use of Roman numbers for the 12 known factors and these factors with preferred synonyms are given in Table I. A simplified scheme of blood coagulation adequate for clinical application is given in Table II. The initiator reaction which consists of the action of platelets and its four known factors with inactive "contact" factors is not considered in this scheme.

The inadequacy of commonly used technics for "bleeding" and "coagulation" time for pre-operative detection of latent bleeders is well known but some institutions who have abandoned its routine use are left in a vacuum. The increasing unpopularity of these tests is partly due to short cuts in the technics, such as the "puddle-the blood-on the slide" method of so-called "coagulation time." More important, however, is the insensitivity of such tests in the detection of Phase I coagulation abnormalities involving the various forms of hemophilia and hemophilia-like states.

In 1953 Brinkhous and his associates described a new rapid clotting test, designated

INTERNATIONAL NOMENCLATURE OF BLOOD CLOTTING FACTORS

Factor	Preferred Synonyms
I.	Fibrinogen
II.	Prothrombin
III.	Thromboplastin
IV.	Calcium
V.	Ac-globulin Proaccelerin Labile factor
VI.	Term no longer used. Factor VI = activated Factor V
VII.	Proconvertin Serum prothrombin conversion accelerator (SPCA)
VIII.	Antihemophilic factor (AHF)
IX.	Plasma Thromboplastin Component (PTC)
X.	Stuart factor
XI.	Plasma Thromboplastin Antecedent (PTA)
XII.	Hageman factor

TABLE I

SIMPLIFIED SCHEME OF BLOOD COAGULATION

PHASE I	*Formation of Thromboplastin* Platelet factor 3 Factor VII — Factor XII Factor IX — Calcium Factor X
PHASE II	*Formation of Thrombin* Thromboplastin Prothrombin → Thrombin Factor V Factor VII Factor X
PHASE III	*Formation of Fibrin* Thrombin Fibrinogen → Fibrin *Lysis of blood clot:* Plasmin (fibrinolysin) Fibrin → Clot lysis

TABLE II

as partial thromboplastin time (PTT). This test did not find a widespread application because a now standardized readily available reagent was not then available. Recently, such a reagent was introduced by three leading commercial companies under the names of "Platelin," "Thrombofax" and "Cephaloplastin" and extensive clinical evaluation confirmed the usefulness of the test for routine purposes.

Partial Thromboplastin Test

This test follows the technic of "prothrombin time" and can be performed on venous or capillary blood. The latter micro modification using disposable micropipettes is particularly useful as a pre-operative test on children. PTT detects deficiencies of the following seven of the eight clotting factors of plasma: Factor I (fibrinogen), Factor II (prothrombin), Factor V (labile factor), Factor VIII (antihemophilic factor), Factor IX (Christmas factor, PTC), Factor X (Stuart factor), and Factor XI (PTA). PTT appears to be insensitive only to a deficiency of Factor VII and such an isolated deficiency is extremely rare. The test may also detect circulating anticoagulants.

Interpretation:

Normal range: 60-100 seconds.

Prolongation of over 120 seconds occurs in even mild deficiencies of the above listed coagulation factors.

If PTT is over 100 seconds, a standard prothrombin test should be performed.

Prothrombin time normal, PTT prolonged = Deficiency in thromboplastin generation (Phase I of coagulation)

Prothrombin time prolonged, PTT prolonged = Deficiency in Phase II (conversion of prothrombin to thrombin) or Phase III (conversion of fibrinogen to fibrin)

The routine pre-operative use of the partial thromboplastin test does not obviate the necessity of accurate history and physical examination. It should be supplemented by evaluation of platelets from a properly prepared blood smear.

Other Screening Laboratory Tests

Other useful screening tests and the physiologic function which they measure are outlined in Table III. Special mention should be made of the simple modification of the very sensitive but highly complex thromboplastin generation test (Hicks-Pitney test). This modification makes use of the now commercially available partial thromboplastin and is suitable for preliminary screening.

Interpretation of the Screening TGT (Thromboplastin Generation Test).

Normally, 10 minutes incubation of the generation mixture under standard conditions will result in a prothrombin time of 16 seconds or less. If the prothrombin time is over 16 seconds, it usually indicates a deficiency in one of the plasma factors necessary for the Phase I coagulation and more specific tests such as the Standard Thromboplastin Generation Test will be indicated to detect the specific defect.

Conclusion

1. Great advances have occurred in our knowledge of the coagulation mechanism but many theoretical aspects are still imperfectly understood, controversial and confusing.

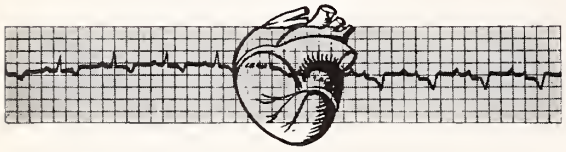
SCREENING LABORATORY TESTS USEFUL IN HEMORRHAGIC DISORDERS

Test	Physiologic function tested	Normal Values
1. Tourniquet (Rumple-Leede)	Blood vessels, platelets Crude index of capillary fragility	less than 5 petechiae
2. Bleeding time (Ivy)	Blood vessels, platelets	2 - 6 min.
3. Platelet count	Platelets as physical rather than functional units	150,000-400,000 per cu. ml
4. Clot retraction	Platelet activity	20 - 65% 1 - 24 hrs.
5. Partial Thromboplastin Test	Coagulation mechanism as a whole	60 - 100 sec.
6. Thromboplastin generation test (Hicks-Pitney)	Sensitive detector of Phase I coagulation	clotting time 16 sec. or less after 10 min. incubation
7. Whole blood clotting time	All three phases of coagulation, but predominantly Phase I	6 - 10 min.
8. One-stage prothrombin time (Quick)	Phases II and III of coagulation (Prothrombin, Factors V, VII, X)	12 - 14 sec.
9. Prothrombin consumption (serum prothrombin time)	Phase I of coagulation (if prothrombin time prolonged). Factor VIII	more than 21 sec.
10. Fibrinogen concentration	Fibrinogen	150-300 mg/100ml
11. Clot dissolution	Fibrinolysins	No lysis in 24 hrs.

TABLE III

2. Conventionally used methods for "bleeding and coagulation times" are inadequate to detect latent bleeders.
3. New sensitive screening tests for detection of coagulation defects are now available and pre-operative screening of latent bleeders is desirable and practical.
4. A rapid clotting test, the Partial Thromboplastin Test (PTT) is recommended for routine pre-operative and other screening of latent bleeders. ◄

Electrocardiogram
of the month



Presented as a regular feature of The JOURNAL, Electrocardiogram of the Month is a series of short talks on cardiovascular diagnosis and treatment, edited by the staff of the Robert M. Moore Heart Clinic of the Marion County General Hospital, Indianapolis.

Wolff-Parkinson-White (W-P-W) Syndrome

*CHARLES FISCH, M.D.**
Indianapolis

THE WOLFF-PARKINSON-WHITE syndrome represents a congenital abnormality of atrioventricular conduction. The clinical significance of this anomaly lies in the fact that it is frequently associated with episodes of atrial tachycardia, some quite resistant to conventional therapy, and at times these arrhythmias may simulate ventricular tachycardia. The electrocardiographic pattern of the short P-R, slurring on the upstroke of the QRS and secondary T wave change may simulate or obscure myocardial infarction or right ventricular hypertrophy. Infrequently W-P-W is mistaken for bundle branch block.

The records (Figure I) which are presented in this communication were obtained in an infant with congenital cyanotic heart disease. The lower two rows (6-12-62) disclose abnormal P waves, P-R of 0.14 seconds, moderate right axis deviation, deep Q waves in II, III and AVF. Precordial leads are diagnostic of right ventricular hypertrophy, with an rsR in V-I and failure of normal progression of QRS from right to left. Cardiogram taken on 6-8-62 (upper strip) reveals an atrial tachycardia with a rate of 260 per minute. The next two rows represent the tracing after spontaneous cessation of the arrhythmia.

The W-P-W pattern is best seen in precordial leads (V-1 to V-6). The P-R measures about 0.06 seconds, a slur on the upstroke of QRS (△ wave) is clearly visible and the QRS pattern consist of R waves in all the six precordial leads. A diagnosis of right ventricular hypertrophy or analysis of the QRS complexes is not possible. The pattern described here, namely one associated with upright △ waves in right (V-1, V-2) as well as left (V-5, V-6) ventricular leads is thought to be associated with a posterior bypass (bundle of Kent). In such a case both right and left ventricles are activated simultaneously from back to front giving rise to a positive △ wave throughout the precordium.

* From the Robert M. Moore Heart Clinic, Marion County General Hospital and the Department of Medicine, Indiana University School of Medicine.

Supported by the Herman C. Krannert Fund of the Indiana Heart Association and the Indiana State Board of Health.

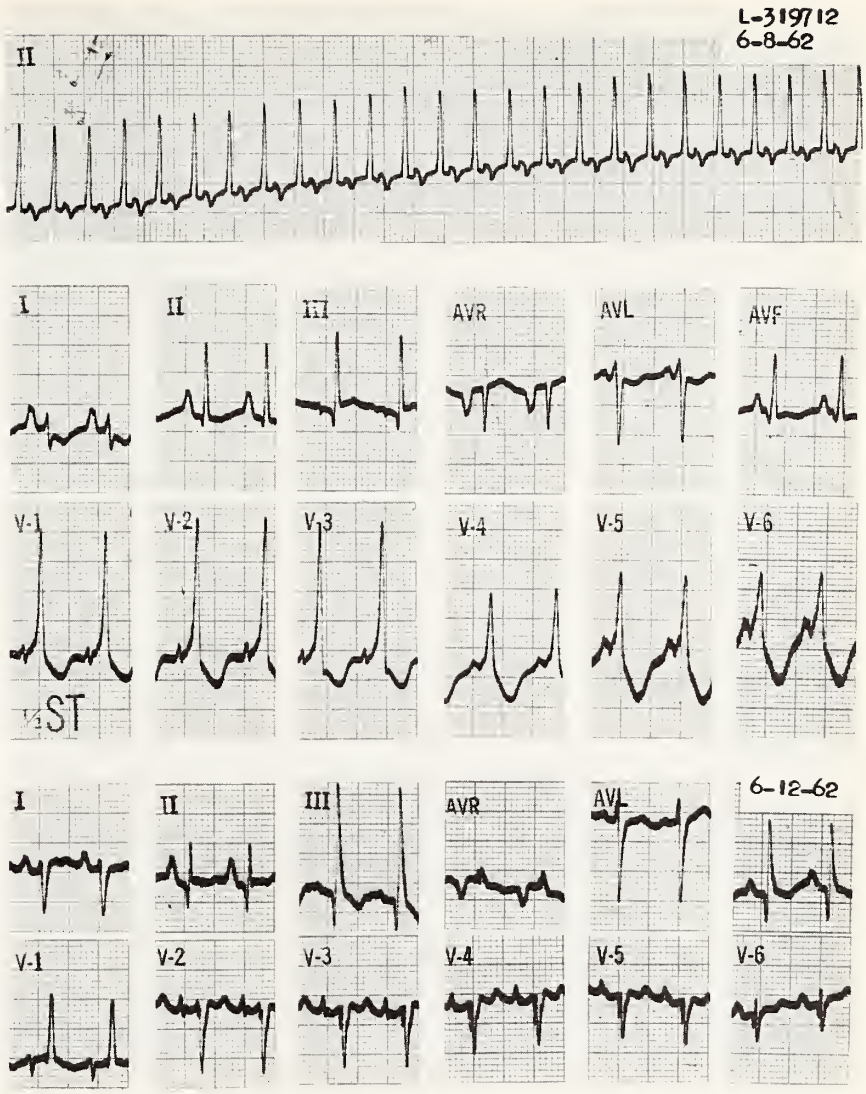


FIGURE 1

THIS FIGURE shows paroxysmal otrial tochycardio (upper row), the W-P-W (rows 2,3) and the normalized trocing (rows 4,5). The pottern of right ventriculor hypertrophy (bottom two strips) is obscured by W-P-W (middle two strips). For details see text.

LABORATORY MEDICINE

Published periodically as a review of clinical laboratory procedures suitable for laboratories with minimal equipment.

Clot Retraction Time

A. WENDELL MUSSER, M.D.*

HEMOSTASIS is an extremely important process to the welfare of the human. The formation of the fibrin clot is the end point of hemostasis. Although many other factors, such as vessel retraction, probable vasoconstrictor agent and adhesiveness of the endothelial lining are involved, the plugging of the opening of the vessel wall by the fibrin clot is of great importance if not from a mechanical standpoint, then from a chemical one.

As has been discussed before, coagulation can easily be summarized in three steps or phases. The first phase has to do with the formation of thromboplastin, the second with the formation of thrombin and the third with the formation of fibrin. Platelets are integrally involved in the formation of thromboplastin and also have some final effect upon the physiochemical changes affecting the fibrin strands. During the formation of the fibrin strands and meshwork, platelets are entrapped in the fibrin and adhere to the fibrin framework. The fibrin absorbs thrombin which acts upon the platelets resulting in metamorphosis of the platelets. In some unknown manner the fibrin strands then shorten and contract.

Several factors are involved in the quantitative and qualitative aspects of clot retraction.[1] Among these are: total number of platelets, the quantity of thrombin, the concentration of fibrinogen, cell volume and the type of container in which the blood is collected. A decrease in cell volume results in an increase in clot retraction. When the platelet count is normal, an increased concentration of fibrinogen leads to poor clot retraction. For reasons unknown clot retraction is reduced in pneumonia and jaundice. Clot retraction is also reduced in multiple myeloma probably as a result of interference by the abnormal proteins.[3]

Clot retraction is in all essence an indirect measure of the platelet count if one minimizes and corrects for the effect of the other factors described above. Naturally intact platelets are necessary for clot retraction. Although clot retraction is used a great deal as an indirect measure of qualitative and quantitative platelet function, Quick[4] feels that this information adds little to diagnosis or prognosis. As he points out, evidence at this time leads one to believe that clot retraction may be an important factor in venous thrombosis and thus an aid in discovering those people with thrombotic potential. Of course the test must be complemented with a platelet count, hematocrit reading, a prothrombin consumption time and in some cases a partial thromboplastin time. A useful clot retraction method is that of Hirschboeck.[2]

* Formerly at Indiana University Medical Center. Now at Womack Army Hospital, Fort Bragg, North Carolina.

Clot Retraction Time (Hirschboeck)

Equipment:

1. Bard Parker blade No. 11.
2. Sahli hemoglobin pipettes.
3. Test tube with castor oil.

Procedure[5]

After either venous or fingertip puncture, 20 mm. of blood are measured with the Sahli pipette and carefully deposited on the castor oil surface as a large single drop (this manipulation should not take more than 20 seconds). The tube is kept at room temperature and inspected after ten, 15 and 20 minutes, then every two or three minutes. A visible dimpling of the clot surface and extrusion of a droplet of serum denotes the beginning of clot retraction and the endpoint of the test. Duplicate tests should always be done, the values being required to be no more than three minutes apart.

Normal Range: 20 to 45 minutes; average 33 minutes.

Increased times and reduced retraction are noted in thrombocytopenia, thrombocytopathies, polycythemia, states of increased fibrinogen blood level and in many hemophilioid diseases. A reduced time is indicative of a thrombotic tendency.

REFERENCES

1. Alexander, B., et al.: Congenital afibrinogenemia: Study of some basic aspects of coagulation. *Blood*, 9:843-865, 1954.
2. Hirschboeck, J. S.: The effect of operation and illness on clot retraction: description of a new method. *J. Lab. Clin. Med.*, 33:347-355, 1948.
3. Macfarlane, R. G.: Critical review: mechanism of hemostasis. *Quart. J. Med.*, 34:1-29, 1941.
4. Quick, A. J.: Clot retraction: its physiological and clinical significance. *Amer. J. Med. Sci.*, 220:538-546, 1950.
5. *Workshop on Techniques in Blood Coagulation*, (Revised Manual.) Council on Hematology of American Society of Clinical Pathologists, Sept., 1960. ◄

From *the Journal* Fifty Years Ago

. . . Tuberculosis in children frequently follows in the train of some other infectious disease. This tendency really constitutes the serious menace of certain infectious diseases not usually considered dangerous. I regard measles in children as serious a disease as scarlet fever. True, measles has a very low apparent death-rate, while scarlet fever has a high one. Yet in the case of measles the association with death is less immediate and therefore does not appear in mortality tables from which we are accustomed to form our estimate of hazards. Measles seemingly predisposes toward the development of tuberculosis in a degree not enjoyed by any of the other infectious diseases of childhood. Scarlet fever and diphtheria have very appreciatively fewer cases of tuberculosis developing secondarily than do measles. This tendency to develop a secondary tuberculosis places measles in the class of serious diseases of childhood.

There is nothing strange about it, either. That certain races of human beings can live together to their mutual advantage and profit is not strange or difficult to believe, for it is a matter within the range of everyone's experience and observation. Differing types of bacteria can in like manner live together to their mutual advantage, or even follow each other in residentship to mutual advantage. I believe this to be the most fertile field for bacteriological study open today, and that the next rewriting of our theory of disease production and prevention will be along these lines. That such association can modify and alter the nature of resulting disease is proven, but the search for bacteria having an antagonistic action on major disease-producers is practically a virgin field. . . .

T. Victor Keene, M.D., "Tuberculosis in Children," *JISMA*, November, 1912.

The Journal
of the INDIANA STATE MEDICAL ASSOCIATION

Devoted to the interests of the medical profession of Indiana

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Infant Deaths at Record Low

THE U. S. DEATH RATE for infants is now almost exactly one-fourth of what it was 45 years ago. In a report on hazards of infancy published in *Progress in Health Services,* George Bugbee points out that over 300,000 babies born last year are alive today as a result of improvements in medical care since 1915, and that if the entire country had enjoyed as good an infant mortality as Utah did last year, 27,000 more babies would have survived their first year.

The decline in infant mortality from 100 deaths per 1,000 live births in 1915 to a rate of 25.3 in 1961 has been almost sensational. While it has been substantial, it has not been steady, nor has the death rate always declined each year. Since 1915 there have been ten years in which the rate was higher than the preceding year. The last two humps in the downward curve occurred in 1957 and 1958 because of the influenza epidemic. The year 1956 was a record low at that time at 26 per 1,000. The provisional rates in 1960 and 1961 (25.7 and 25.3) have each set a new low.

Most of the improvement since 1915 has been in the post-neonatal period (at 28 days of age and over). In 1915 the last 11 months of the first year of life produced more deaths than the first month. Today the first month has three times as many fatalities as the next 11 months. The first day of life, the first week and the first month are more dangerous than any other comparable period of time later in life. The first week is especially hazardous; nearly two-thirds of all deaths during the first year occur in the first week.

Lowered infant mortality is mostly due to better control of infective and parasitic diseases. The lower death rate for whooping cough, dysentery, syphilis and tuberculosis accounts for most of the decline. These four diseases taken together have rates so low today that statistical tables do not list them, but carry them under "all other causes" and as a part of "certain gastrointestinal diseases."

Variations in infant mortality due to sex, color and geographic location are considerable. Male infants have a rate some 29% higher than female infants, and in the neo-

natal period (first 28 days) the excess is even higher (32.5%).

The mortality rate is much higher in nonwhite infants. In the 1915-1919 period nonwhite infants compared to white infants as 147.5 to 92.8. In 1959 the comparison was 44 to 23.2. The decline has been more substantial for white infants. Forty-five years ago the nonwhite rate exceeded the white by 61%, but today this excess has risen to 81%.

The rates vary considerably according to location, with the states differing from Utah with the lowest (20.0) to Mississippi the highest in continental U. S. (39.0) and Alaska with 42.9.

The rates are lowest in the West North Central states (22.7) and the New England states (22.9). They are highest in the East South Central states (31.7) and the South Atlantic states (31.6). Indiana is listed with the East North Central states with an overall rate of 24.5, a touch better than the national average.

The Asian influenza epidemic affected the rate for the entire country in 1957 and 1958 but its effect was most pronounced in the East South Central states. This may have been due to the fact that the epidemic was much more severe for nonwhite infants for whom the rate rose in those years by 8.6% in contrast to the white infant rate increase of 4.2%.

Further reduction of the infant mortality rate will probably depend upon education of prospective parents in sanitation, nutrition and periodic medical consultations. Actually the easiest part of the problem has been solved; the difficult part lies ahead. Success will depend on more and more detailed attention to a multitude of small details, any one of which produces a small part of the mortality, but the sum of which is considerable.

Guest Editorials

An Invitation to Los Angeles

THE YEAR 1962 has been a busy one for your American Medical Association. Every physician knows that through no wish of our own, the AMA was forced to devote much time and energy to non-scientific affairs during the year.

But while many members of the American Medical Association were busy with the winning of another round in the long fight to sustain free medicine in America, others were also busy sustaining the scientific work of the AMA and pushing rapidly ahead with programs aimed at helping you in your practice.

One of the major scientific undertakings of the AMA each year is the winter clinical meeting. The 1962 clinical meeting will be held Nov. 25-28 at Los Angeles.

The members of the Council on Scientific Assembly, the committees in charge of plans and program and a host of other physicians have been working throughout the year to insure a well balanced and important scientific program for the 1962 meeting. They have succeeded admirably.

The physician in practice will find much of interest and benefit in the scientific papers, symposia, panels, films and exhibits in three and one-half days at the Shrine Auditorium at Los Angeles.

The program was published in its entirety in the Oct. 27 issue of the *Journal* of the AMA. You will find strong emphasis on those health problems that confront virtually all of us in day-to-day practice—cancer, heart disease, virus diseases and many others.

The program on heart disease is a particularly strong one, including several of America's leading specialists. Papers on cancer will fill two complete units of the program and others on this theme will be presented in many of the specialty areas. Viral hepatitis, a growing disease that is confronting us more and more often in practice, will be given a thorough study.

Something new of a scientific nature will be offered in Los Angeles: a complete half-day program on air pollution. There is much yet to be learned about the effect of polluted air on man, but there also is much

that is known. Most of us are from time to time required to treat conditions that might have stemmed from some pollutant in the atmosphere around us. The latest knowledge in this growing field of medicine will be available to physicians attending the meeting.

Join your colleagues at Los Angeles in November. You will find much knowledge that will be of inestimable value to you in the years to come.

George M. Fister, M.D.
President, American
Medical Association

Thalidomide Explosion

IN MID-JULY an article in the *Washington Post* touched off what has since been called the "thalidomide publicity explosion." A surprising feature of this blast was its delayed action fuse, for the big noise developed seven months after the Food and Drug Administration was notified about thalidomide babies and three months following Dr. Helen Taussig's public report on the outbreak of thalidomide-induced phocomelia in Western Europe. The explosion has included a dramatic statement by the President, sudden proliferation of frightening headlines throughout the nation, a demand by some segments of the press for the names of thalidomide investigators, an inflation of unsubstantiated data regarding toxicity of oral contraceptives, and daily reports on the progress of an international abortion case involving thalidomide. It is odd that the furor concerns a tragedy which has occurred, not in the United States, but in those very European countries which the President has said are 30 years ahead of us in their systems of medical practice.

If the primary purpose of the official drama had been to warn people about thalidomide, there would hardly have been such a long delay in urging American women to search their drug cabinets. It appears more likely that we are witnessing another example of panic politics; it is certainly no coincidence that along with the thalidomide explosion has come a surge of Administration pressure for increased federal control of drug production.—An excerpt from the *Texas State Journal of Medicine*, September, 1962.

AMA-ERF Needs Financial Aid

A FAR-REACHING new medical education loan guarantee program is now under way in American medicine. The goal of this program is to help eliminate the financial barrier to medicine for all who are qualified and accepted by approved training institutions. It is designed to provide a means of financing a substantial portion of the cost of a medical education.

The loan program for medical students, interns and residents is the result of a cooperative effort by American medicine and private enterprise.

The program is administered by the American Medical Association's Education and Research Foundation. The ERF has established a loan guarantee fund. On the basis of this fund, the bank will lend up to $1,500 each year to students. The ERF in effect acts as co-signer. For each $1 on deposit in the ERF's loan guarantee fund, the bank will lend $12.50.

More than 3,300 students, interns and residents have borrowed more than $6,000,000 through this fund since it was started last February. Ninety-two loans have been made in Indiana for a total of $105,900. Physicians and others have contributed almost $700,000 to the loan guarantee fund, which makes possible these loans.

The guarantee fund is almost depleted and more money is needed immediately to keep up the loan program. Eventually it will become self-sustaining as loans are repaid, but right now substantial financial help is needed. Your check to the AMA-ERF, 535 North Dearborn St., Chicago, will help to keep this important program viable. Contributions to the foundation are tax deductible.—AMA-ERF editorial.

Editorial Notes . . .

Indiana has a shortage of approximately 5,000 general hospital beds. Dr. A. C. Offutt, State Health Commissioner, in commenting on the 1962 revision of the Indiana Hospital, Medical Facilities and Health Center Plan, said that 13 Indiana general hospitals are now adding 832 beds, but that in spite of this the state is short at least 5,000 beds. Population increase is one of the reasons why a sufficient supply of hospitals is difficult to attain. Last year there was an increase of 602 general beds, but the population increase of 50,000 almost nullified the bed increase.

Credit life insurance has been the fastest growing type of life insurance since 1945. It consists of term insurance which pays off the balance of the loan in the event of death of the borrower. It has become popular because it is practical. It protects the lender and the borrower (including his estate and his family). More than $34 billion of life insurance is carried for this purpose. Payments last year exceeded $175 million. These totals include only the life insurance written through lending agencies. Policies, of which there are many, bought by individuals to protect mortgages, are not counted in the above totals.

Don't dry clean while drunk! Alcohol has been found to potentiate the toxic effects of inhaled fumes of carbon tetrachloride. Two patients of 19 reported recently in the *JAMA* used carbon tet to clean clothes spotted at a cocktail party and did so before the fumes of the party had departed. Result—kidney failure.

A textile invention promises to be helpful in controlling the spread of pathogenic organisms in hospitals. A new hygienic additive that is invisible, odorless and non-toxic to humans may be incorporated into fabrics. The additive serves to lengthen the life of the fabric since micro-organisms are responsible for decay of fibres; it also minimizes the retention of pathogenic bacteria in the fabric and lessens the chance of cross-infection. The additive will survive several dry cleanings, and if the fabric is washable, it can be renewed if and when necessary by adding it to the rinse water.

Eli Lilly Company researchers have been able to synthesize a number of antibiotics from a base substance known as cephalosporin C, which was first produced in 1956 and found to be unaffected by penicillinase. Cephalosporin C, itself, is weakly antibiotic. Lilly chemists have modified the molecule and produced several compounds which retain cephalosporin's inactivity with penicillinase but are very anti-bacterial. Clinical investigation is now starting. ◄



MAURICE E. GLOCK, M.D.

President

Indiana State Medical Association

1962-63

Dr. Maurice Glock of Fort Wayne began his term as president of the Indiana State Medical Association during appropriate after-dinner ceremonies at French Lick on October 9.

Dr. Glock was born, raised and received his early education in Fort Wayne. He attended Indiana University and graduated with the B.S. and M.D. degrees in 1934. After an internship at Indiana University Medical Center he completed a residency in medicine and was instructor in medicine at the University of Chicago. He has practiced internal medicine in Fort Wayne since 1937, with the exception of five years of military service during World War II.

He is a part of a large medical family. His father, Dr. H. E. Glock, received his 50-year pin several years ago and is now retired. His brother, Dr. Wayne Glock, practices in Fort Wayne. One of his three children, his son, is a junior in Indiana University School of Medicine, and his three nephews all are enrolled in the same school.

One of his two daughters is a senior in the School of Education at Indiana University and his youngest daughter is in high school.

Dr. Glock entered military service early in 1941 as Regimental Surgeon, 152nd Infantry, 38th Division. Later he served in the European Theater, first as Evacuation Officer for the Chief Surgeon, and later as Commanding Officer of the 809th Hospital Center.

Dr. Glock has been especially active with the alumni association of Indiana University School of Medicine, having served on the council, as vice-president and as representative to the alumni council. He is a member of the Paul Coble American Legion post in Indianapolis and the Trinity English Lutheran Church.

He represented the Allen County Medical Society as delegate to the ISMA from 1946 to 1952. He was a member of the Council for eight years and served as its chairman for two years. He was a member of the Committee on Medical Education and Hospitals for many years and was its chairman for two years. He also served as a member of the Commission on Legislation and of the Liaison Committee with the American Legion.

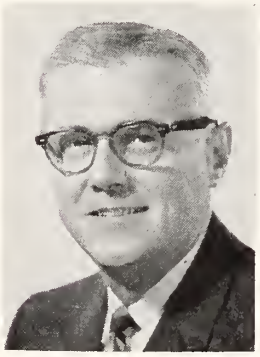
He is a member of the Lutheran Hospital staff and the Ft. Wayne Academy of Medicine.

Dr. Glock has had a busy year as president-elect. He brings to the office of president many years of experience in the affairs of medicine at the state level.

President's Page

"TO WHOM MUCH IS GIVEN, MUCH SHALL BE REQUIRED."

In this Thanksgiving month, we as physicians can be truly grateful for our many blessings. We have been endowed by our Creator with talents and capacities above average. We have been educated in the best medical schools in the world and are privileged to practice freely in a system which has proved to be the best in the world. We have the immense satisfaction of serving our fellow men. For the most part, we are adequately recompensed for our labours and services. As individuals we have the respect, affection and admiration of those we serve.



In order to deserve these many blessings, we must continue to furnish the best possible medical care to all, regardless of age, race, color, creed and financial circumstance. We must continue to learn and further increase and perfect our skills. We must be good citizens in our communities and actively participate and lead in community activities. As well informed and knowledgeable individuals, we must actively participate in the democratic process of self government so that just and equitable legislation is passed, not only for the good of our profession but for the good of every person and segment of our population.

I would like to make a special plea at this time for a more thorough participation by our members in the affairs of organized medicine. "No man is an island, entire of itself" and we as physicians are dependent upon our fellow physicians and are obligated to assist other physicians. We need the strength of our entire membership, actively working at all levels, as we have never needed these efforts before. Please contribute not only your personal talents and energies but also financially in an adequate manner to those efforts which are so valuable to our entire profession.

Maurice E. Stocke

"When more of the people's sustenance is exacted through the form of taxation than is necessary to meet the obligations of Government and expenses of its economical administration, such exaction becomes ruthless extortion and a violation of the fundamental principles of a free Government."

Does that sound familiar? It was said by President Cleveland in his second annual message in December, 1886.

"The lessons of paternalism ought to be unlearned and the better lesson taught that while the people should patriotically and cheerfully support their Government, its functions do not include the support of its people."

These too are the words of President Cleveland spoken in his second inaugural address on March 4, 1893.

"Oh Lord! that lends me life,
Lend me a heart replete with thankfulness!"—Shakespeare

Mary Johnson

In the December Journal

Complete coverage of the 1962 ISMA Annual Convention, including business proceedings of the House of Delegates and a picture story of convention events.

Cardiac Arrest and Experiences with The Cardiac Resuscitation Course

J. E. ARATA, M.D.
A. E. HOFFMAN, M.D.
R. P. LLOYD, M.D.
E. M. HOETZER, M.D.
J. McCALLISTER, M.D.
LEE LaFEVRE, B.S.E.
Fort Wayne

EVERY MEDICAL community should have a cardiac arrest drill on periodic occasions. It is apparent to us that one of the most fertile fields for improving the safety of surgery and anesthesia is the placement of more emphasis on the problem of cardiac arrest.

For example, much money has been spent in making operating rooms explosion proof. Such efforts are well worth the cost, but the ratio of explosion deaths is very small when compared to deaths from cardiac arrest in the operating room.

It is estimated that 5,000 deaths occur yearly in the United States due to cardiac arrest during surgical procedures. Many such deaths are preventable. In some cases, a person can be restored to his former state, both physically and neurologically, if the emergency is treated promptly before irreversible anoxic neurological changes occur.

Many people suffering from coronary artery disease do not die of coronary insufficiency or myocardial fibrosis, but of very tiny myocardial infarctions or small areas of myocardial ischemia. Most of these people actually "electrocute" themselves and die in ventricular fibrillation. This can be reversed if adequate therapy is promptly applied. Other major applications of such knowledge concern accidental electrocutions. Some feel that policemen and firemen should have instruction in this subject since they are the people doing first aid and ambulance work in larger cities.

Three years ago, the authors formed a committee to investigate the problems of cardiac arrest and to organize a course in the prevention and treatment of this catastrophe, to be offered to the physicians of the Fort Wayne area. This has been carried out, and at the present time 90 physicians and dentists have completed the course in the northeastern area of Indiana. The course was financed by a grant from the Bruggeman Foundation, the Northeastern Indiana Heart Association, and by a small fee from each participant in the course.

The course has been approved for eight hours of AAGP Category I credit, and has consisted of lectures of two hour's duration; films and laboratory demonstrations occupying the other six hours. The course has been carried out in the lecture rooms and in the experimental laboratory at the St. Joseph Hospital in Fort Wayne.

Lectures consist of an introduction to the general aspects of cardiac arrest, the relation of anesthesia to arrest, medical aspects of cardiac arrest and surgical aspects of cardiac arrest. Prevention of arrest is stressed throughout the course by emphasis on adequate oxygenation of the adequately anesthetized patient (not too light and not too deep) and by a good pre-operative evaluation of the patient.

Films and Animals Used to Demonstrate

For visual education, we have employed the film of Dr. Claude Beck on "Resuscitation for Cardiac Arrest" and also "External Cardiac Massage" by Jude et al. who have produced the film on closed chest cardiac massage in conjunction with Smith, Kline & French Laboratories. On the experimental animal, we have demonstrated the principles of both "open" and "closed" chest cardiac

Continued on page 1665

massage, and internal and external cardiac defibrillation.

Each participant in the course has been permitted to fibrillate and defibrillate the experimental animal's heart with the internal defibrillator. He practices massage of the heart and his results are monitored on an oscilloscope through a phono-catheter inserted into a femoral artery. He has also seen the external defibrillator used and has been taught the effects of prolonged anoxia on the heart and brain. Needless to say, the course has been received with great enthusiasm and has given added confidence to those who have participated.

In conjunction with the course on cardiac arrest, it was apparent to us that most cardiac defibrillators on the market are designed for those who have a very complete knowledge of the subject. We felt a need for the development of a more simple machine and one in which most of the guesswork was taken out of this subject. During the emergency exercise, one ought not be given too much leeway for error. A "panic proof" instrument is of utmost importance. Very few can recall what might be considered a proper voltage and a proper time interval for voltage application during the crisis. All too often, attempts are made to increase voltage and exposure time to the shock in an anoxic fibrillating heart and to neglect the importance of adequate oxygenation of the myocardium before attempting to defibrillate the heart. Such errors result in hyperthermia, "burning" of the myocardium, and failure to achieve the desired end.



COMBINED internal and external defibrillator of a simplified design useable by the occasional operator because of the self-explanatory instructions. This device is available through the DePuy Mfg. Corp. (Medical Electronics Division), Warsaw, Indiana.

Hyperthermia Prevented

The voltages that we have employed on our combination internal-external defibrillator are 110 volts for the infant and 170 volts for the adult for internal defibrillation. For external defibrillation, we have employed 330 volts in the child, and 440 volts in the adult. We have made the curved internal paddles (7.5 cm. in diameter) and the external electrodes (10 cm. in diameter) adequate in size to prevent the effects of hyperthermia. We have felt that a single time for the passage of the voltage would be superior to a wide choice of times. Accordingly, we have employed 0.18 seconds. This is considered adequate by most authorities, and when combined with the voltages employed and the electrodes of large size, will not result in hyperthermia to the myocardium.

Plainly printed instructions detailing the salient features of treatment of cardiac arrest (whether standstill or fibrillation) will enable those with the least acquaintance with the subject to recall the necessity for oxygenation of the lungs and transport of oxygenated blood to the brain by massage whether it be by the "closed" or "open" method.

Our efforts have resulted in resuscitation of a number of patients who, otherwise, in the opinion of their physician, would not have been resuscitated. Included in our experience is one patient who was successfully resuscitated after a coronary occlusion which resulted in fibrillation and apparent death. He now is healthy and without symptoms, either neurological or cardiac.

We feel that all members of the medical and dental profession should familiarize themselves with the salient features of cardiac resuscitation. We would heartily recommend similar courses in other medical communities. ◄

The Ethical Promotion of Ethical Pharmaceuticals

ROBERT A. HARDT*
Chicago, Illinois

MOST OF US became acquainted with the word "promote" at the end of our first year in school when we were promoted to the second grade. Promotion was good. It was an absolute necessity to a six-year-old.

As we advanced in school, we learned that the good word has other meanings which are not so good. There is the oil stock promoter, for example, an unsavory character by popular understanding. Now, we are confronted with some meanings which have recently been attached to the word as it applies to informing the physician about pharmaceuticals and persuading him to try them in his practice. "Promotion," the good word, has been interpreted to indicate excessive costs to the patient, false claims, mounds of paper in the practitioner's mail box, and armies of manufacturers' representatives seated in doctors' offices.

Before discussing these matters in detail, we should remind you of a couple of facts of life in the 1960's.

First, all commercial advertising and promotion is suspect by extreme political leftists. They are the most prolific and unscrupulous of promoters in certain directions, but *they* even hate brand names. They have appealing arguments, too. You may see five or six different dairy trucks delivering milk and milk products in your neighborhood. Their milk is indistinguishable once the labels are removed, and prices are almost identical. Yet each dairy promotes its own brand at considerable expense, and duplicates the other fellow's service.

Promotion and Competition

Why, the left-wingers ask, should the consumer pay these added costs? Why not sell dairy products on government grades and divide up the territory among the truck drivers? Why not, indeed? Simply because we know that sound, free competition in all products (promotion, if you will) is a better guarantee of value and service to the people than any government grade or scheme.

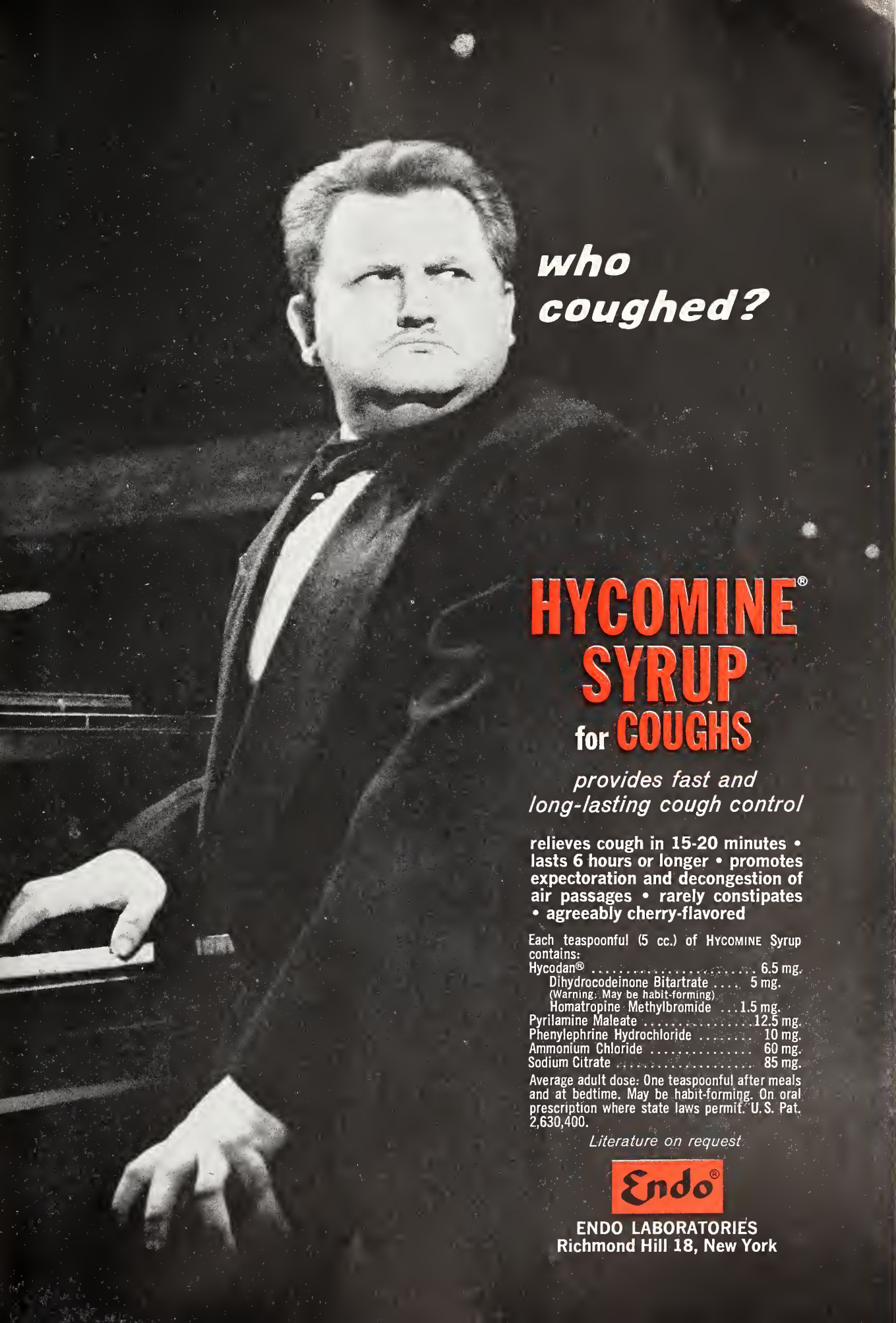
This suspicion of an opposition to the cost of promotion and advertising comes in varying degrees from different individuals. Some very patriotic Americans simply do not understand the necessity for product promotion in a free economy. The socialists and communists, of course, actively promote antagonism to promotion. It is a situation which affects all business, as well as the drug industry.

The second fact of modern life which affects the promotion of ethical drugs is the terrific competition for the attention of people. National magazines are changing formats, developing regional editions, and using other devices to compete for attention. A recent issue of the *Wall Street Journal* tells us that in 1961, at least two dozen new, specialized magazines have been started, with such titles as *Show*, *Fair Sex*, *USAI* and *Bravo*.

Most readers are familiar with what has happened in the medical field. A recent quantitative breakdown of the nationally-circulated journals shows the following: 99 specialty journals—ranging all the way

Continued

* President, Armour Pharmaceutical Company, and a member of the board of directors of the Pharmaceutical Manufacturers Association.



who coughed?

HYCOMINE® SYRUP for COUGHS

provides fast and long-lasting cough control

relieves cough in 15-20 minutes • lasts 6 hours or longer • promotes expectoration and decongestion of air passages • rarely constipates • agreeably cherry-flavored

Each teaspoonful (5 cc.) of HYCOMINE Syrup contains:

Hycodan®	6.5 mg.
Dihydrocodeinone Bitartrate (Warning: May be habit-forming)	5 mg.
Homatropine Methylbromide	1.5 mg.
Pyrilamine Maleate	12.5 mg.
Phenylephrine Hydrochloride	10 mg.
Ammonium Chloride	60 mg.
Sodium Citrate	85 mg.

Average adult dose: One teaspoonful after meals and at bedtime. May be habit-forming. On oral prescription where state laws permit. U.S. Pat. 2,630,400.

Literature on request

Endo®

ENDO LABORATORIES
Richmond Hill 18, New York

from one with the single word name, *Cancer,* to the *American Journal of Roentgenology, Radium Therapy, and Nuclear Medicine*—and others in widely diverse fields such as *Fertility and Sterility* and the *Journal of Investigative Dermatology.* Additionally, there are the five general practice journals, four general journals and 13 controlled circulation journals in addition to 30 miscellaneous periodicals, many state and regional publications, and hundreds of city and county bulletins.

You receive much more direct mail advertising than you did ten years ago, not only in connection with your profession, but from people who want to sell you things ranging from automobiles to tax-free liquor from the West Indies. There are claims for attention made by television, radio, spectator and participant sports, organizations and meetings. It becomes increasingly difficult for anyone with a message to find people who will listen.

Thus, in considering the criticism of pharmaceutical promotion, we should be aware that we would still be criticized if costs were cut in two. It is necessary to spend more money to get a message across to a physician, or anyone else, today than it was some years ago.

Detailman vs. Advertising

The ideal way to get our message to the doctor is to send a knowledgeable, trained medical service representative to his office. Our man not only can tell the doctor about what we have for him, but the physician is free to challenge any statement we make and insist on answers. I am sure that every pharmaceutical manufacturer wants to make as many personal calls on physicians as he can afford.

But the cost of relying solely on personal calls for promotion of pharmaceuticals is prohibitive. It costs about $10 to call on a physician when all of the expense is totalled. Also, there is a limit to the amount of conversation the doctor can and will permit at one sitting. Most of the products in the manufacturer's line are not even mentioned in these interviews.

Therefore, we turn to advertising in periodicals and by direct mail. Fortunately, the medical journals are the principal advertising media, and most of them require documentation of claims before accepting any advertisement. Strictest of all scientific journals in accepting advertisements are the publications of the American Medical Association. A department of advertising evaluation has been set up by the AMA to determine the eligibility of products and the suitability of claims which must clear each and every advertisement.

In a University of Illinois study covering 500 physicians, more than 50% of the journal advertisements were reported to have been read in their entirety and only 10% were read not at all. Seventy-four percent had a favorable reaction to the advertising appearing in journals. Fifty-eight percent credited journal advertising as having considerable influence.

With this wide acceptance of medical journal advertising, manufacturers naturally tend to pattern all of their advertising according to the high standards set by these journals.

Truth in Advertising

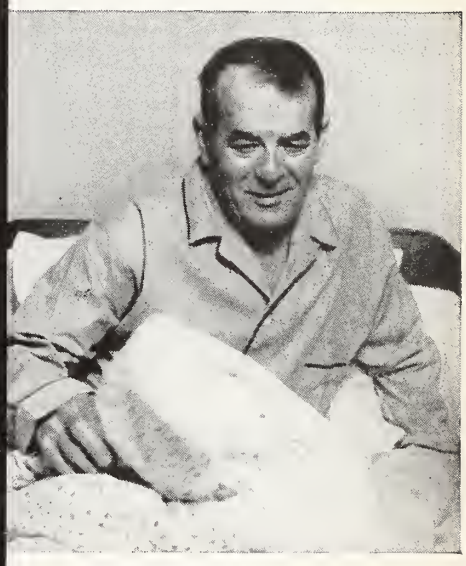
There are two other factors which have a strong influence in keeping medical advertising truthful and ethical. The law is one, but legal standards are minimal. The greatest force working for ethical medical advertising is the profit motive. No manufacturer ever made money from a single prescription for a single patient. Profit, if any, must come from repeated prescriptions for thousands of patients. Under these circumstances, the advertiser must be very careful to protect his general reputation for telling the truth, and be sure that he can back up every single statement in his ads.

Pharmaceutical manufacturers as well as physicians frequently complain about the predominance of advertising in the journals. In other words, we sometimes have the feeling that there is more advertising than editorial content. This is not quite true because most journals make a sincere effort to restrict advertising space to somewhat under 50%. When they find they are unable to do this, they usually make a semi-monthly

Continued on page 1672



night, the arthritic wakes up comfortable



Morning stiffness may be reduced or even eliminated as a result of therapy with the only steroid in long-acting form. And the slow, steady release of steroid makes it possible in some cases to reduce the frequency of administration and/or the total daily steroid dosage.

Medrol* Medules*

Each hard-filled capsule contains Medrol (methylprednisolone) 4 mg. Also available in 2 mg. soft elastic capsules.

Supplied in bottles of 30 and 100.

Upjohn

The Upjohn Company, Kalamazoo, Michigan

Reminder advertisement.
Please see package insert for detailed product information.

out of a monthly publication. Manufacturers worry particularly about getting lost in a publication which contains advertisements in color, in bleed, color inserts, novelty pop-ups which sometimes make the journal look a bit like a Dennison catalog. But we are more interested in what can be done about improving journal advertising.

It is quite easy to jump to the conclusion that an advertisement should carry only information and no emotional appeal. This is sometimes suggested as a panacea for all of the ills of advertising. However, I can assure you from personal experience that this is not the answer to the problem because information without some interest-developing factor is pretty dull.

The "Warm Sell"

Medical journal advertising, unfortunately, can no more disregard the rules of advertising than the advertising of any successful consumer product. Some of these rules are well known to you, they include such words as "repetition," "continuity" and "impact." Any good advertisement must first attract attention, inform, influence and persuade. I well remember the admonition of a professor in college who constantly repeated the statement along these lines:

> Tell your customers and they will be informed.
>
> Prove to them and they will believe.
>
> Persuade them and they will ACT.

The tone of an advertisement is, of course, important. We hear a lot about "hard sell" and "soft sell."

Personally I dislike both these expressions and the procedures they are supposed to describe as well. I prefer to say that most pharmaceutical manufacturers already make use of what is called "warm sell." Warm sell may be defined as a good, honest product sold with enthusiasm. I see nothing wrong with this and, in fact, believe that more warm sell is needed in all of our activities throughout the world.

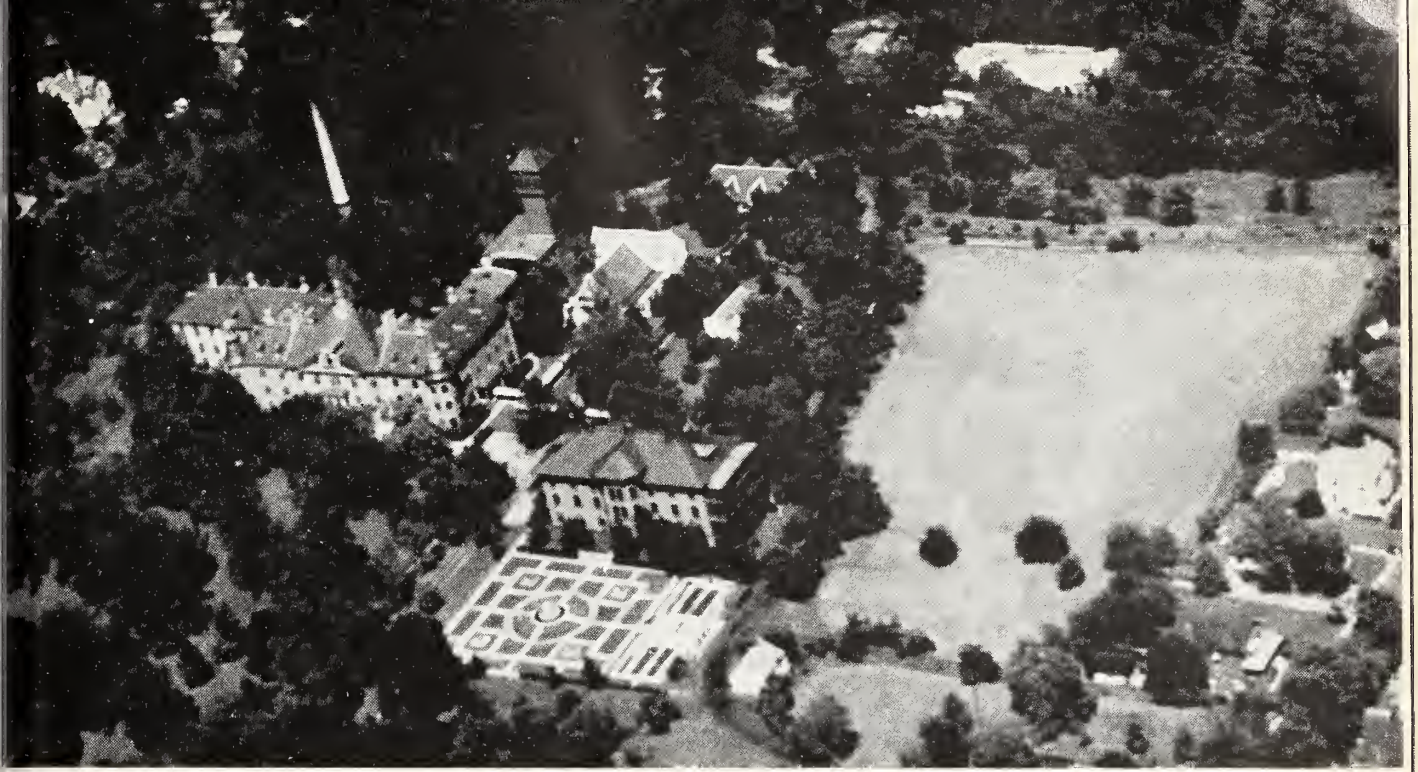
So much for the content and character of pharmaceutical advertising. There remains the question of how much it should cost. In most cases, the answer is that a promotion program will cost the amount necessary to reach an objective.

Profits Essential

As an example, research on a new therapeutic agent marketed recently by Armour Pharmaceutical Company began more than nine years ago. The continuous and tortuous journey from basic research through pharmacology, toxicology, clinical investigation and pharmaceutical development is a costly one; at the end of the nine-year period an effective new drug became available to physicians for prescription. Yet, it is hardly satisfactory that a superior new drug becomes available; the medical profession must be made aware of its existence, its indications, its side reactions if any. The drug *must* be promoted and prescribed in sufficient volume to offset the financial outlay of nine years' scientific work.

It would be folly to set up a program of promotion aimed at anything less than recovering all costs and realizing a profit. Perhaps we will never reach that objective, but the sure road to failure is a skimpy promotion budget.

What of the future? We can be sure that pharmaceutical promotions will improve, and that objectionable practices will continue to diminish, but we can't see any reduction in costs. There is more to talk about and tell about every year, and the cost of doing the job continues to advance. Manufacturers can, and must review their promotion costs constantly and spend their money wisely. Some wasteful expenditures may have been passed along to the public in the past, but the economics of marketing ethical pharmaceuticals today does not allow for any mistakes of this nature. ◄



SERENE SURROUNDINGS

ACCREDITED PSYCHIATRIC HOSPITAL FOR PRIVATE DIAGNOSIS AND TREATMENT

Approved by the Joint Commission on Accreditation of Hospitals.

Equipped to provide latest acceptable methods of treatment, including Out-Patient Pavilion.

Ample classification facilities with qualified psychiatric nursing.

Full occupational therapy and recreational activities.

Forty acre estate to assure privacy in a restful setting.

write to the address below for new illustrated brochure

WILLIAM E. HILLARD, M.D.
Medical Director

CHARLES W. MOCKBEE, M.D.
Associate Medical Director

ISABELLE DAULTON, R.N.
Director of Nursing

GRACE SPINDLER, R.N.
Associate Director of Nursing

ELLIOTT OTTE
Business Administrator

CHARLES M. CLIFFE
Associate Business Administrator



THE EMERSON A. NORTH HOSPITAL, Inc.
(Founded 1873)

5642 HAMILTON AVENUE, CINCINNATI 24, OHIO
Telephones: KIrby 1-0135 KIrby 1-0136

Physicians Must Have an "Account Number" Even Though Not Covered by Social Security

UNDER AUTHORITY contained in Public Law 87-397 (Oct. 5, 1961), relating to taxpayer-identifying numbers necessitated by the installation of the automatic data processing system by the Internal Revenue Service, the Commissioner of Internal Revenue, on August 24, 1962, adopted regulations requiring taxpayers and payers of income to obtain and use identifying numbers.

The regulations term the number prescribed for use by an individual an "account number." Since 140 million Americans already have Social Security numbers, it was decided to use these numbers to avoid the inconvenience of obtaining other numbers. Thus, the account number which an individual will indicate on a return or other related document also will be his Social Security number.

Unless a physician is or was ever an "employee," it is unlikely that he will have a Social Security number since doctors of medicine who are self-employed are excluded from coverage under the Social Security system. However, since *every* person required to make a return, statement, or other document for any period commencing after 1961 with respect to his tax liability must have an account number, physicians will have to obtain such numbers even though they are not covered under the Social Security system.

According to the regulations, application forms for use in obtaining account numbers will as far as possible be furnished *without* request during 1962 to taxpayers needing numbers. Thus, a taxpayer is not required to file an application for an account number during 1962 *unless* furnished with an application. A taxpayer who has been supplied with an application form *must* file it in accordance with the instructions for such form. *After* 1962, an individual needing an account number *must* file an application for an account number on either Form SS-5 or Form 3227. An application form may be obtained from any district director, or any district office of the Social Security Administration.

An individual engaged in a trade or business is also required to obtain an identifying number which is termed an "employer identification number." For this (and our) purpose, an individual is considered to be engaged in a trade or business if any return is required to be filed by him as an employer (other than a household employer) with respect to his liability for the Social Security taxes imposed under the Federal Insurance Contributions Act and the provisions of the Internal Revenue Code which require an employer to withhold income taxes from the wages of employees.

Thus, such an individual may not only have an account number but an employer identification number. And, under the regulations he is required not only to include his account number in the appropriate return, statement or other document but also to include his employer identification number in the schedule provided for reflecting profit or loss from a business or profession.

Obviously, a physician-employer is required to obtain an employer identification number if he doesn't already have one. This is unlikely if he has been an employer for some time. If a number has not been assigned then application therefore must be made on Form SS-4 to any district director or any district office of the Social Security Administration office. Referring to the requirement as to the inclusion of account numbers and employer identification numbers, a physician employer would have to include his account number on his income tax return (or declaration of estimated income tax) and his employer identification number on Schedule C of Form 1040 (Profit (or Loss) from Business or Profession).

An income tax return or a declaration of estimated income tax filed jointly by a husband and wife need include only the account

Continued

RELIEVE THE COLD SUPPRESS THE COUGH WITH NEW

'EMPRAZIL-C'

TABLETS

ANTITUSSIVE ▪ DECONGESTANT ▪ ANALGESIC

Each tablet contains:

Codeine Phosphate*	15 mg.
'Sudafed'® brand Pseudoephedrine Hydrochloride	20 mg.
'Perazil'® brand Chlorcyclizine Hydrochloride	15 mg.
Acetophenetidin	150 mg.
Aspirin (Acetylsalicylic Acid)	200 mg.
Caffeine	30 mg.

*Warning—may be habit forming.

Complete literature available on request.

Also available without codeine as

'EMPRAZIL'®

TABLETS



BURROUGHS WELLCOME & CO. (U.S.A.) INC., TUCKAHOE, N.Y.

"ACCOUNT NUMBER"

Continued

number of the husband. However, a wife's account number must also be shown if, for the taxable year covered by the return or declaration, the wife has (a) separate gross income of $600 or more, or $1,200 or more if she has attained the age of 65 before the close of the taxable year, (b) self-employment income, or (c) income (such as wages, dividends, or interest) paid to her otherwise than with her husband which the payer thereof is required to report on a return or statement of information.

The law and regulations impose a penalty for failure to include the identifying number in any return, statement, or other document, or when otherwise required. The penalty is $5 for each such failure.

The foregoing is merely intended to highlight the important aspects of the new regulations. However, it may be that, for the average taxpayer, this discussion will suffice. At least, it will serve as a good background for the application forms which have to be filed. ◄



The FIRST Hematinic to Contain BOTH CHELATED IRON and CHELATED MINERALS Assuring a Truly Flavorful, Better Tolerated Iron Therapy.

ADVANTAGES —

Chelated Iron PLUS 4 Chelated Minerals • High Therapeutic Effectiveness • Less Irritation — even on empty stomach • No Tooth Stain • Less Toxic • B-Vitamins for Added Hemopoietic Activity • Pleasant Flavor • Economical

KELATRATE

LIQUID HEMATINIC

CHELATED IRON-MINERALS and VITAMINS

FORMULA —

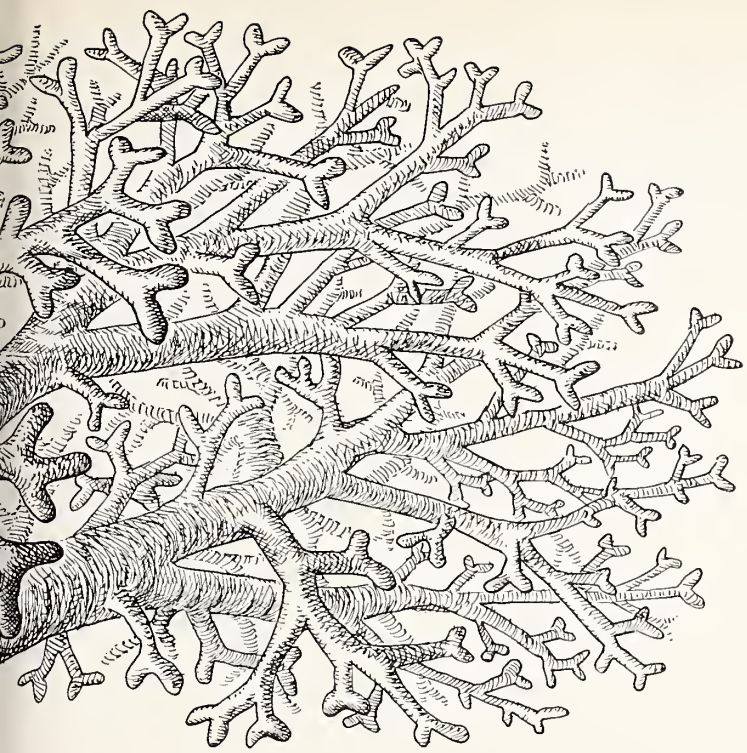
Each 5 cc. (one teaspoonful) contains:

Iron (as Ferrous Betaine Citrate)	30 mg.
Cobalt (as Cobaltous Betaine Citrate)	0.1 mg.
Manganese (as Manganese Betaine Citrate)	1.0 mg.
Zinc (as Zinc Betaine Citrate)	1.25 mg.
Magnesium (as Magnesium Betaine Citrate)	6.0 mg.
Vitamin B-1	1.5 mg.
Vitamin B-2	1.2 mg.
Vitamin B-12	6.0 mcg.
Niacinamide	10 mg.
Panthenal	10 mg.

In an exceptionally pleasant tasting base.

Comprehensive literature and samples on request.

S. J. TUTAG & CO.
DETROIT 34, MICHIGAN
TUTAG



unsurpassed for total patient benefits

Aristocort®

Triamcinolone Lederle



With ARISTOCORT, asthmatic patients obtain sustained relief of wheezing, dyspnea, and spasmodic coughing. It is of particular value in ameliorating severe attacks that may have serious sequelae. With ARISTOCORT, many patients who might otherwise be invalids are able to continue their customary livelihoods or maintain their regular household activities. Yet this symptomatic relief is not often accompanied by the hormonal collateral effects —sodium retention, edema, emotional disturbance, insomnia, voracious appetite— that so often have been a deterrent to steroid therapy.

SUPPLIED: Scored tablets (three strengths), syrup and parenteral. Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.

Lederle

LEDERLE LABORATORIES
A Division of
American Cyanamid Company
Pearl River, New York

The Closed Chest Method of Cardiopulmonary Resuscitation

Benefits and Hazards

(An original statement on the closed chest method of cardiopulmonary resuscitation prepared by the American Heart Association has been revised to incorporate recommendations of an Ad Hoc Committee of the Industrial Medical Association appointed for this purpose. In its present form this statement is subscribed to by the Industrial Medical Association, the American Heart Association, and the American National Red Cross.)

IN VIEW of the growing interest in the closed chest method of cardiopulmonary resuscitation, and the possible dangers in its indiscriminate use, the following statement has been prepared as a guide to the public regarding the present place of this new technic.

The closed chest method of cardiopulmonary resuscitation has been proved effective as a medical procedure in certain cases of stoppage or disruption of the heart beat. However, it is to be considered a temporary method and additional medical treatment, which may include the use of drugs and an electric defibrillator, is usually required to restore the circulation permanently.

The heart beat may stop as a result of a variety of conditions or circumstances such as water submersion, electrical shock, asphyxiation, heart attack or during anesthesia or surgery. Most people who experience sudden stoppage or disruption of the heart beat (cardiac arrest) cannot be saved, even under ideal circumstances in a hospital. The least measure of success has been experienced in coronary heart "attack" cases. However, the prompt use of cardiopulmonary resuscitation has enabled lives to be saved which previously might have been lost. The new technic of closed chest cardiac massage makes it possible to continue blood circulation without opening the chest, thus greatly extending the possibilities for attempting saving of life. Consequently, it is the desire of all concerned to achieve widespread use of this method where it can be used safely and effectively.

The public should be advised, however, that the application of closed chest cardiopulmonary resuscitation calls for a working diagnosis of the victim's condition. It is important to be sure that the circulation has actually stopped because the method involves certain hazards. Reported injuries to patients have included damage to the heart and liver, internal bleeding, multiple rib fractures and puncture of the lungs. In untrained hands the risk of injury is increased. It is particularly important to avoid the possibility of inflicting serious injury on a person under the mistaken impression that cardiac arrest has occurred when the individual has simply fainted or lost consciousness from some other cause.

Successful application of closed chest cardiopulmonary resuscitation depends on thorough and careful training. One is most unlikely to be able to achieve artificial blood circulation by this method if his only training is from reading written instructions.

In view of these facts, it is suggested that closed chest cardiopulmonary resuscitation be applied only by carefully trained personnel so that it may be utilized with the greatest safety and effectiveness. Two qualified persons are preferable because it is necessary to maintain artificial respiration at the same time the heart is being massaged externally. A decision as to whether training in this procedure should be extended to certain segments of the general public must be postponed until further experience accumulates.

The organizations joining in this state-

Continued

Trocinate®

Brand of Thiphenamil HCl.

FOR DIVERTICULITIS, MUCUS COLITIS,

IRRITATIVE DIARRHEA, IRRITATIVE URETERITIS,

BLADDER SPASM

Trocinate is a musculotropic antispasmodic with no appreciable anticholinergic action. It relieves spasms of the lower bowel and genito-urinary tract by direct action on the contractile mechanism of smooth muscles. The absence of any appreciable action on the autonomic nervous system eliminates the usual side-effects. It may be safely used in glaucoma. Each tablet contains 100 mgs. Trocinate HCl.

USUAL DOSAGE: 2 tablets, 4 times a day. Maintenance dosage is frequently lower.

Dispensed in bottles of 40 and 250 tablets.

WM. P. POYTHRESS & COMPANY, INC., RICHMOND, VIRGINIA

Manufacturers of ethical pharmaceuticals since 1856



The 1963 Van Meter Prize Award Will Go to Best Essay on Goiter

The American Thyroid Association again offers the Van Meter Prize Award of $500.00 to the essayist submitting the best manuscript of original and unpublished work concerning "Goiter—especially its basic cause." The studies so submitted may relate to any aspect of the thyroid gland in all of its functions in health and disease. The competing essays may cover clinical or research investigations, should not exceed 3,000 words and must be presented in English. Duplicate, typewritten copies, double spaced, should be sent to the secretary, Theodore Winship, M.D., 110 Irving Street, N.W., Washington 10, D. C., *not later than January 15, 1963.*

The award will be made at the annual meeting of the association at the Drake Hotel, Chicago, Ill., May 9-11, 1963. A place on the program will be reserved for the winning essayist if he can attend the meeting. When more than one author's name appears on the manuscript, the author will be asked to designate a single recipient to receive the award.

It is suggested that the authors also submit a 300 word abstract. In the event the manuscript is not selected as a winning entry for the Van Meter Prize Award, the abstract can be considered for the general program.

New Medical Film on PKU Available to Physicians

"PKU Mental Deficiency Can Be Prevented" is a 14½ minute sound, black and white film produced under the supervision of Harry A. Waisman, M.D., Ph.D., Department of Pediatrics, University of Wisconsin Medical School.

The film presents case histories of two siblings, both with phenylketonuria. It reviews the biochemistry, genetics, symptoms, diagnosis and management of PKU. Available for showings, without charge, to medical groups and organizations.

Requests for loan of prints should be sent to Medical Film Department, Ames Company, Inc., Elkhart, Ind.

New Pamphlets Offered By National Fire Protection Assn.

The National Fire Protection Association announces the availability of pamphlets as follows: "Nonflammable Medical Gas Systems" at 50 cents, "Flammable Anesthetics" at 50 cents, "Essential Hospital Electrical Service" at 50 cents, "Bulk Oxygen Systems at Consumer Sites" at 40 cents and "Portable Fire Extinguishers" at $1.00. Copies of these standards may be obtained by writing the association at 60 Batterymarch St., Boston 10.

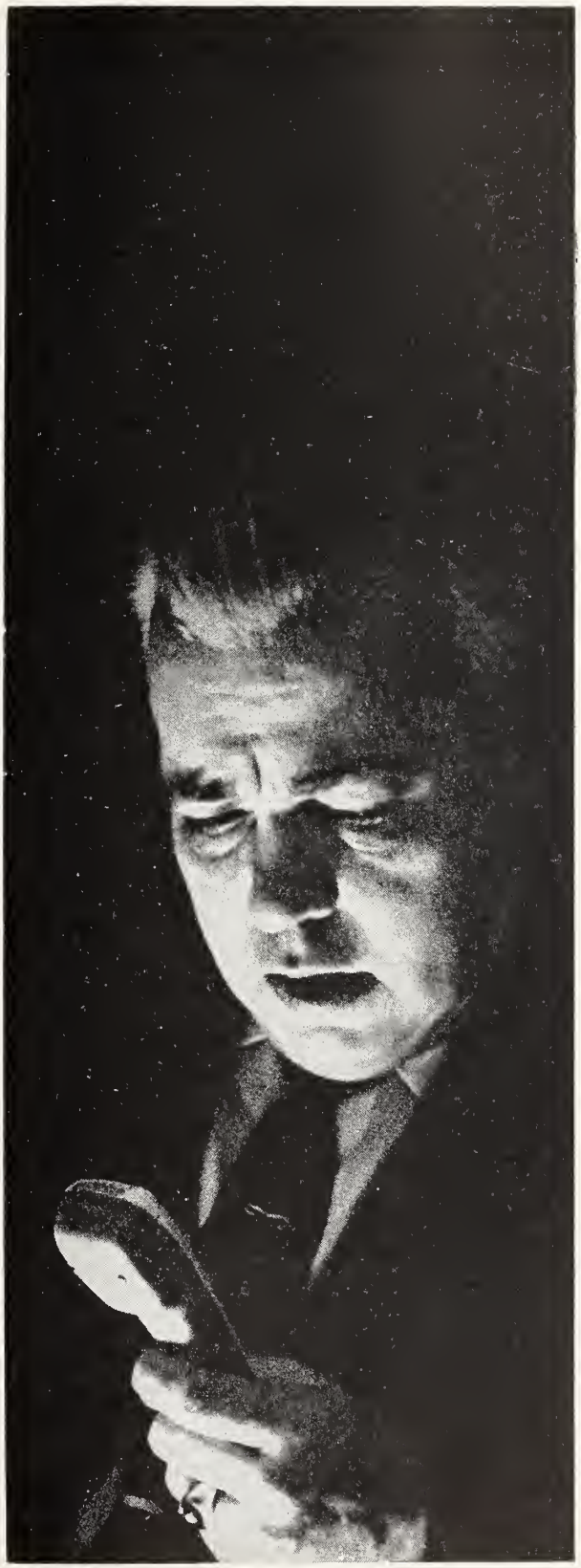
Dr. John B. Hickam, Indianapolis, has been appointed to the Special Medical Advisory Group of the Veterans Administration. The group meets quarterly to advise the VA concerning the VA medical program.

Report Available to Physicians On Rights of Epileptics

An up-to-date report on the legal rights and obligations of persons with epilepsy has been published by the Epilepsy Foundation, Federal Association for Epilepsy, Inc., 1729 F Street, N.W., Washington 6, D.C.

The report contains a summary of the

Continued



Day and night– less wheezing, coughing, labored respiration in chronic bronchitis and emphysema

New Isuprel Compound Elixir is a balanced expectorant bronchodilator. It contains potassium iodide to promote expectoration and relieve dry cough. Its three bronchodilators, Isuprel, ephedrine, and theophylline, keep bronchi continuously dilated. Luminal is included to negate possible side effect from adrenergic medication and to provide very mild dation for the patient.

New Isuprel Compound Elixir alleviates symptoms...prolongs relief in chronic bronchitis and emphysema.

Each good-tasting vanilla-flavored tablespoon (15 cc.) contains:

Isuprel® (brand of isoproterenol) HCl	2.5 mg.
Ephedrine sulfate	12 mg.
Theophylline	45 mg.
Potassium iodide	150 mg.
Luminal® (brand of phenobarbital)	6 mg.
Alcohol	19%

Adult Dose: 2 tablespoons 3 or 4 times daily.

How Supplied: Isuprel Compound Elixir is supplied in bottles of 16 fl. oz.

Before prescribing be sure to consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.

New ISUPREL® compound ELIXIR

Winthrop LABORATORIES
New York 18, N.Y.

ISUPREL AND LUMINAL, TRADEMARKS REG. U. S. PAT. OFF.

laws of all of the 50 states and of the District of Columbia. Copies of the report are available upon request to the foundation.

Dr. A. C. Offutt, Indiana State Health Commissioner, was elected vice-president of the Association of State and Territorial Health Officers at a recent meeting in Washington, D. C.

Dr. W. D. Snively, Jr., of Evansville, executive vice-president of Mead Johnson and Company, was the 1962 recipient of the "Harold Swanberg Distinguished Service Award" of the American Medical Writers Association. Dr. Snively was cited for his many contributions to medical literature and for his work in the development of communications in medical fields. Dr. Hugh Hussey, Chairman of the AMA Board of Trustees, was given the association's "Honor Award," as a "distinguished physician, teacher and educator."

Willard S. Krabill, M.D. has been named to the American Medical Association's newly formed Committee on Medicine and Religion. The committee, designed to promote communications between physicians and clergymen, is made up of ten doctors and ten clergymen. The Rev. Dr. Paul B. McCleave is head of the committee.

The development of this committee, the stimulus for which came from the ranks of the AMA, represents the first serious attempt by any large national organization of physicians to bring religion and medicine closer together. Dr. Krabill recently participated in a panel discussion on this topic for a meeting sponsored by the AMA for the state and county officers of medical societies throughout the country. ◄

The Oldest Name
IN
PROFESSIONAL LIABILITY INSURANCE
"making the doctor's practice safer"
★
THE
MEDICAL PROTECTIVE COMPANY
FORT WAYNE, INDIANA
Professional Protection Exclusively since 1899

INDIANAPOLIS OFFICE: Kenneth W. Moeller, Rep.
P.O. Box 20132, Indianapolis 20 Tel. CLifford 5-6525
FORT WAYNE OFFICE: A. Russell Quilhot, Rep.
5814 Reed Road, Fort Wayne Tel. Trinity 1161



Put your low-back patient back on the payroll

Soma relieves stiffness —stops pain, too

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, *fast!*

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

This was demonstrated by Kestler in a controlled study: average time for full recovery was 11.5 days with Soma, 41 days without Soma. (J.A.M.A. **172**:2039, April 30, 1960.)

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets.
USUAL DOSAGE: 1 TABLET Q.I.D.

The muscle relaxant with an independent pain-relieving action

SOMA®

(carisoprodol, Wallace)

Wallace Laboratories, Cranbury, New Jersey

Deaths

Edward M. Baylor, M.D.

Dr. Edward M. Baylor, 70, former Evansville pharmacist and practicing physician, died Sept. 3 in Los Angeles, Calif.

Dr. Baylor, who retired in 1950, owned the Baylor Pharmacy in Evansville and lived there for 36 years before he left three years ago because of ill health to live with his son in Los Angeles. He was a Senior Member of ISMA and a member of the Vanderburgh County Medical Society.

Cecil P. Clark, M.D.

Dr. Cecil P. Clark, 68, well-known Indianapolis ophthalmologist, died Sept. 8 on the golf course at the Ulen Country Club, Lebanon.

Born at Goodland, Dr. Clark came to Indianapolis after starting his practice at Boise, Idaho, and practiced here 38 years. He was on the staffs of St. Vincent's, Community, General and Methodist hospitals. A graduate of the I. U. School of Medicine, Dr. Clark was a member of the Marion County Medical Society.

COOK COUNTY
GRADUATE SCHOOL OF MEDICINE

CONTINUING EDUCATION COURSES
STARTING DATES — 1962-1963

Anesthesia-Inhalation, Endotracheal, Regional—by appointment.
Surgical Technic, Two Weeks, February 18, 1963
Surgery of Colon and Rectum, One Week, November 26
Vaginal Approach to Pelvic Surgery, One Week, December 17
Gynecology, Office and Operative, Two Weeks, April 1, 1963
Obstetrics, General and Surgical, Two Weeks, Nov. 26, March 11, 1963
Proctoscopy and Sigmoidoscopy, One Week, Dec. 17, Jan. 28, 1963
Varicose Veins, One Week, Dec. 17, Jan. 28, 1963
General Surgery, One Week, February 25, 1963
Advances in Surgery, One Week, December 10
Board of Surgery Review, Part II, Two Weeks, Nov. 26, Mar. 4, 1963
Basic Internal Medicine, Two Weeks, March 4, 1963
Management of Common Fractures and Dislocations, One Week, Dec. 3
Board of Internal Medicine Review, Part II, One Week, Dec. 3
Breast and Thyroid Surgery, One Week, December 3
Gallbladder Surgery, Three Days, March 11, 1963
Surgery of Hernia, Three Days, March 14, 1963
Clinical Courses in Fractures, Dermatology, Pediatrics, Radiology, by appointment.
Information concerning numerous other continuation courses available upon request.

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Fred C. Glenn, M.D.

Dr. Fred C. Glenn, Tell City health officer and a general practitioner there for 47 years, passed away Sept. 18 of a heart attack.

Dr. Glenn, a Senior Member and member of the ISMA 50-Year-Club, was graduated from the University of Louisville School of Medicine in 1908. He was a native of Eureka and a member of the Perry County Medical Society.

John R. Huddle, M.D.

Dr. John R. Huddle, 44, died Aug. 30 when he fell from a roof while helping a friend install a television antenna. He and his family were vacationing in Ardmore, Ala., when the accident occurred.

Born at Attica, Dr. Huddle had lived in Indianapolis since 1946 and was a 1952 graduate of the I. U. School of Medicine. He was a member of the Marion County Medical Society, and on the staffs of Methodist, Community and St. Francis hospitals.

Frank G. Keller, M.D.

Dr. Frank G. Keller, 94, a Winchester native, died Sept. 3 in the Peabody Memorial Home, North Manchester.

Dr. Keller was the oldest living graduate of Winchester High School and believed to be the oldest living graduate of the Medical College of Ohio, University of Cincinnati. A member of the ISMA 50-Year-Club, Dr. Keller practiced medicine in Alexandria for 64 years. He was a member of the Madison County Medical Society, having retired in 1954.

Ralph L. Lochry, M.D.

Dr. Ralph L. Lochry, 74, retired head of the x-ray departments of General and St. Vincent's hospitals, died Sept. 17 in Memorial Clinic.

Born at Franklin, Dr. Lochry was a graduate of Franklin College and the I. U. School of Medicine. He headed the x-ray departments at St. Vincent's for 37 years.

Continued

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DEATHS

Continued

After retiring in 1955, he spent much of his time at Ft. Lauderdale, Fla. He was a member of the Marion County Medical Society and a Senior Member of ISMA.

Ardis F. Melloh, M.D.

Dr. Ardis F. Melloh, 57, died of a heart ailment Sept. 21 in St. Vincent's Hospital.

A general practitioner in Indianapolis for 30 years, Dr. Melloh was graduated from the I. U. School of Medicine in 1931. He was awarded the Bronze Star in World War II when he was a major in the 104th Infantry Division that saw action in Holland, Belgium and Germany.

He was a member of St. Vincent's Hospital staff and the Marion County Medical Society.

Clarence V. Rozelle, M.D.

Dr. C. V. Rozelle, 62, Anderson physician for many years, died Sept. 22 in his office.

A graduate of the I. U. School of Medicine, Dr. Rozelle had been treated for a heart ailment for several years but apparently had recovered and recently resumed his practice. He was on the staffs of St. Johns Hospital and the Citizens Nursing Center in Anderson. A member of the Madison County Medical Society, Dr. Rozelle was a member of the Inter-Professional Relations Commission from 1959 to 1961.

Richard C. Swan, M.D.

Dr. Richard C. Swan, 49, industrial medicine practitioner and former physician with Indianapolis sports teams, died of a heart ailment Sept. 2 in Anderson.

Dr. Swan had been medical director of the Delco-Remy Division of General Motors Corp. at Anderson since 1948. He joined the Delco-Remy staff in 1945, after serving two years in a similar capacity with the Allison Division of General Motors in Indianapolis.

Dr. Swan had been team physician for the Indianapolis Indians Baseball Club, Indianapolis Chiefs Hockey Club and Indianapolis Shortridge High School athletic teams before becoming an industrial physician.

At the time of his death, Dr. Swan was chairman of the Industrial Medicine Section of the Public Health Commission of ISMA. He was a member of the ISMA Committees on Industrial Health and Conservation of Hearing and Vision. He was a member of the Madison County Medical Society and served as its president in 1959.

William W. Weaver, M.D.

Dr. William W. Weaver, 64, an ear, nose and throat specialist in New Albany, died Oct. 2 at the Floyd County Hospital.

Dr. Weaver was graduated from the University of Louisville and the Ear, Eye, Nose and Throat Clinic at Brooklyn, N. Y. He was on the staffs of Floyd County Memorial and St. Edward hospitals. In 1949, he served on the ISMA Committee on State Fair.

Robert E. Williams, M.D.

Dr. Robert E. Williams, 37, Tippecanoe County coroner since 1956 and a physician in Lafayette since 1950, died Sept. 19.

Dr. Williams was found dead in his home by his wife. Authorities said he apparently suffered a heart attack. He was a native of Cedar Rapids, Iowa, and a graduate of the University of Cincinnati School of Medicine. Dr. Williams served on the ISMA Commission on Governmental Medical Services from 1958 to 1962.

A. C. Yoder, M.D.

Dr. A. C. Yoder, 94, the AMA's "doctor of the year" in 1951, died Oct. 4 in Goshen Hospital.

Continued

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Saturday, November 3, 1962
Santa Barbara Biltmore Hotel

INDIANAPOLIS, INDIANA
Wednesday, November 7, 1962
The Marott Hotel

ANAHEIM, CALIFORNIA
Sunday, November 11, 1962
The Disneyland Hotel

KNOXVILLE, TENNESSEE
Thursday, November 15, 1962
Hotel Andrew Johnson

PHOENIX, ARIZONA
November 18, 1962
Westward Ho Hotel

NEW CITY, NEW YORK
Wednesday, November 28, 1962
Dellwood Country Club

LOS ANGELES, CALIFORNIA
November 29, 1962
Ambassador Hotel

GRAND RAPIDS, MICHIGAN
Saturday, December 1, 1962
Pantlind Hotel

NORFOLK, VIRGINIA
December 6, 1962
Golden Triangle Motor Hotel

DENVER, COLORADO
Sunday, January 13, 1963
The Cosmopolitan Hotel

FORT SMITH, ARKANSAS
Tuesday, January 15, 1963
The Holiday Inn

PORTLAND, OREGON
Thursday, January 31, 1963
The Sheraton-Portland Hotel

ANCHORAGE, ALASKA
Saturday, February 23, 1963
The Anchorage Westward Hotel

DETROIT, MICHIGAN
Wednesday, February 27, 1963
The Sheraton-Cadillac Hotel

WILMINGTON, DELAWARE
Saturday, March 9, 1963
Delaware Academy of Medicine

HUNTSVILLE, ALABAMA
Thursday, March 14, 1963
The Russel Erskine Hotel

FARGO, NORTH DAKOTA
Saturday, March 16, 1963
The Frederick Martin Hotel
(Moorhead, Minn.)

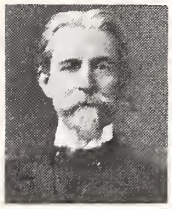
BELLINGHAM, WASHINGTON
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The Hotel Leopold

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DEATHS

Continued

Dr. Yoder was a country school teacher in the Goshen area when he was 16 and was trained as a teacher at Indiana State College in Terre Haute. He became principal of Vincennes High School in 1893 and served six years before deciding to become a physician. After attending I. U. School of Medicine and the Rush Medical School of Chicago, he began general practice in Goshen in 1902.

He served Goshen for 57 years.

Dr. Yoder was Indiana G.P. of the year in 1951. He served on many committees for ISMA, including those on Medical Care of the Indigent, Diphtheria Prevention, Health Insurance, Medical Economics, Centennial Celebration and History and Centennial History and Publications. He also was a Senior Member and member of the ISMA 50-Year-Club. ◄

ANNUAL CLINICAL CONFERENCE

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1. Kolodny, A.L.: Dis. Nerv. System *22*:151 (Mar.) 1961.

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County, District News

Seventh District

Dr. Joseph F. Ferrara, Franklin, was chosen president-elect of the Seventh District Medical Society at a September meeting of the group. Assisting him will be Dr. Jack L. Walters, Franklin, as secretary-treasurer and Dr. Albert M. Donato, Indianapolis, as councilor.

Tenth District

Members of the Tenth District Medical Society have elected Dr. Forrest R. LaFollette, Hammond, as their president for the coming year. Other newly elected officers include Drs. Edward J. Dierolf, Gary, secretary-treasurer; Lowell H. Steen, Whiting, councilor, and Ralph C. Eades, Valparaiso, alternate councilor.

Eleventh District

Dr. Bernard Hall, Logansport, has been elected president of the Eleventh District Medical Society. Assisting him will be Drs. C. L. Wise, Camden, secretary-treasurer; Lowell Hillis, Logansport, alternate councilor and John Bowers, Kokomo, Blue Shield member. The 1963 meeting will be held May 15 at Delphi.

Thirteenth District

Dr. Robert Rouen, Elkhart, has been elected president of the Thirteenth District Medical Society. Other new officers include Drs. John T. Kemp, Michigan City, president-elect; Cecil R. Burket, Bremen, secretary-treasurer and Jene R. Bennett, South Bend, councilor. The 1963 meeting date will be Sept. 18.

Allen

The Allen County Medical Society met Oct. 2 at the Shrine Club in Ft. Wayne. Dr. Morton Hamburger spoke to the 98 members and guests present. His topic was "The New Penicillins and Other Developments in Antimicrobial Chemotherapy."

Cass

The Cass County Medical Society met October 1 at the Ben Hur.

Clay

Frank Blackford, a representative of Pfizer Laboratories, spoke on the Sabin polio vaccine before the Clay County Medical Society Sept. 18. The members voted to put on a polio program with Sabin vaccine in Clay County.

Lake

The Lake County Medical Society heard Sgt. Tim McCarthy of the Indiana State Police speak at their Sept. 12 meeting. The 90 persons present heard a talk and film on "Crash Injury Research."

Montgomery

Dr. J. Theodore Luros, Indianapolis, spoke on "Head and Neck Injuries in Sports" before the Montgomery County Medical Society meeting Sept. 20. There were 21 members and 33 guests present including the coaches of Wabash College and the Montgomery County schools.

Owen-Monroe

The Owen-Monroe County Medical Society met Sept. 27 at the Bloomington Country Club. Dr. Henry Moss, director of the Albert Einstein Research Hospital, Philadelphia and assistant professor of surgery at the University of Pennsylvania, spoke on "Surgical Convalescence" and gave his observations while attending the eighth International Cancer Congress in Moscow.

Shelby

"Cervical Carcinoma: Diagnosis and Treatment" was the topic of Dr. P. M. Inlow when he spoke before the Shelby County Medical Society Oct. 3. There were 16 members present.

Steuben

There were 10 members and one guest present at the Oct. 1 meeting of the Steuben County Medical Society. The ISMA convention delegate was informed of the society's support or rejection of proposals to be voted on at the French Lick meeting. ◄

Association News

EXECUTIVE COMMITTEE

September 22, 1962

Present: Don E. Wood, M.D., chairman; Wendell E. Covalt, M.D.; Harry R. Stimson, M.D.; Maurice E. Glock, M.D.; John M. Paris, M.D.

Frank B. Ramsey, M.D., editor of *The Journal*, and James A. Waggener, executive secretary.

Guest: A. C. Offutt, M.D., State Health Commissioner.

Membership Report

Number of members as of Dec. 31, 1961		4,338
1962 members as of August 31, 1962:		
Full dues paying	3,693	
Residents and interns	161	
Council remitted	40	
Senior	366	
Honorary	3	
Military	46	
Total 1962 members as of August 31, 1962		4,309
Number of members as of August 31, 1961		4,306
Gain over last year		3

Number of AMA members as of August 31, 1962	4,186
Total 1961 AMA members as of August 31, 1961	4,184
Gain over last year	2
1962 AMA members: Dues paying	3,567
Exempt, but active	619
	4,186
Number who have paid state dues but not AMA dues for 1962	123

Annual Convention, French Lick, October 7-10, 1962:

Report on the annual convention approved by consent.

Scientific exhibit plaques. The question of awarding duplicate plaques in cases where two or more physicians are involved in a prize-winning exhibit was discussed and **on motion of Drs. Glock and Stimson the committee voted that only one plaque would be given to an exhibit team and if each member of the team desires a plaque, they could buy them at cost.**

The question as to whether or not the past presidents and councilors should be seated at the speakers' table at the annual dinner was discussed and it was taken by consent that the past presidents and councilors should not be seated at the speakers' table but that special tables shall be reserved for them.

Headquarters Office

By consent the secretary was authorized to purchase a silencer for the automatic typewriter.

Insurance on building. The secretary reported that he had invited some insurance firms to inspect the building and to make recommendations as to the type of insurance coverage that the association should own to amply protect its interests. Proposals from Barton, Curle & McLaren and from Trimpe, Inc. were presented, as was a report from the attorney on his review of the two proposals. By consent it was agreed that the association would purchase the insurance from Barton, Curle and McLaren.

The secretary reported some of the difficulties he had been experiencing with the janitorial services and that he felt he could hire a janitor on a part or full-time basis as economically as the association is currently employing the maintenance firm. By consent the secretary was given the authority to change the janitorial services to whatever he thinks would be the best.

Treasurer's Office

In the absence of the treasurer the secretary reported for him and presented a comparison of the costs of owning and maintaining the building for a three-month period as compared to rental costs in the Hume Mansur Building. It was recommended that this information be given to the House of Delegates.

Legislative Matters

The chairman of the Commission on Legislation reported on the Congressional activity.

Dr. Offutt explained the proposed legislation which is being developed on the central licensing authority for nursing homes.

Organization Matters

National Foundation. A letter prepared by the Commission on Voluntary Health Agencies for transmittal to the National Foundation, in accordance with the action of the council at its July meeting, was referred to the Executive Committee. **Upon motion of Drs. Paris and Stimson this letter was approved and ordered transmitted to the council for its consideration at its October meeting.**

The secretary reported on a matter involving a physician member of the association in procuring malpractice insurance and read a letter from the St. Paul Mercury Indemnity Company requesting the association to write a letter in his behalf. **Upon motion of Drs. Glock and Stimson, the Association is to write a letter to the insurance company pointing out that the physician is a member in good standing of the association, that no complaints are on record against him, and there are no charges pending against him. The physician involved is also to be written a letter that he should appeal this matter to his local county medical society and if the county society is unable to adjudicate the conflict, the matter should be referred to the state Grievance Committee.**

State Department of Public Welfare matter. The secretary reported that he had received a call from the director of the State Department of Public

Welfare in which he stated that the state board would meet on September 26 for the purpose of devising regulations concerning the recent amendment to the welfare bill by Congress providing a 90-day retroactive from date of application clause in the various welfare programs. The secretary reported that Mr. Kelly stated on a survey of county directors they were opposed to endorsing this retroactive provision for this period of time and that he felt the association might desire to prepare a statement to be mailed to the board concerning the opinion of the association in this matter.

By consent the secretary was instructed to write a letter to the welfare department setting forth the feeling of the association as being that the association favored a retroactive provision on the medical only assistance program which would provide for the first day of need not to exceed 90 days prior to application.

National Foundation. A letter from the state office of the National Foundation requesting the use of the mailing list for the distribution of a pamphlet on polio immunization was presented to the committee. **On motion of Drs. Glock and Covalt the secretary is to inform the National Foundation that this request should be directed to the State Board of Health.**

Indiana State Hospital Association accreditation team. An exchange of correspondence between the Indiana State Hospital Association and the president of the Indiana State Medical Association concerning the accreditation team idea was reviewed and it was left to Dr. Stimson, the president, to make an effort to determine what has been done by the Indiana Hospital Association on this subject.

A letter from the Illinois State Medical Society concerning its plans to nominate Dr. Walter C. Bornemeier of Chicago as a candidate for vice-speaker of the AMA House of Delegates was read for the information of the committee.

The secretary reported that he had forwarded to the AMA a letter requesting the re-election or appointment of Indiana men currently serving on councils and committees of the AMA and in addition he had forwarded several other names that had been suggested for consideration for various openings on these councils and committees.

A. H. Robins Company award plaque. A letter was read from A. H. Robins Company, Inc., Richmond, Virginia, requesting the association to reconsider its previous position with regard to the use of an award plaque to be supplied by this company for presentation to some physician for community service. **On motion of Dr. Glock, taken by consent, it was voted that this letter be filed.**

A letter from the engineering firm of Fink, Roberts & Petrie was read and the secretary requested what disposition should be made of this matter. The secretary was instructed to find out what constitutes a simple test and the anticipated cost and present the report at the next meeting of the committee.

The information supplied the headquarters office by Blue Cross-Blue Shield concerning the forthcoming program for aged citizens was distributed to the committee for its information.

Polio immunization. The polio immunization program was discussed and Dr. A. C. Offutt, secretary of the State Board of Health, reported fully on the special meeting that he had called for the health officers on Thursday, September 20. Inasmuch as this matter will be discussed further at the annual convention in two weeks, no action was taken.

Dr. Offutt also discussed the proposal of the State Board of Health to install aluminum filters in physicians' x-ray equipment which do not require mechanical work for the installation, and **upon motion of Drs. Glock and Stimson the proposal was approved.**

Dr. Offutt also reported on the percentage of iodine in milk as a result of nuclear blasts fallout in the various areas of the state, and pointed out that Indiana is not dangerously affected from this standpoint.

The secretary of the Board of Health also reported that a conference was being planned regarding the implementation of the medical self-help training programs in Indiana.

New Business

The secretary presented a letter which had been forwarded to the members of the Executive Committee from the Commission on Aging which outlined the guiding principles which had been tentatively adopted, subject to the approval of the respective organizations, as the Constitution and Bylaws for operation of the Indiana Joint Council on Health Care of the Aged. By consent the chairman of the Commission on Aging is to be requested to make these principles a part of his report to the members of the House of Delegates and this decision is to be left to the house.

The committee reviewed the resolutions to come before the House of Delegates meeting in October.

A letter was read from the Governor concerning a request his office had received regarding Indiana paying some recognition to the birthplace of John Shaw Billings, M.D., who was born in Switzerland County in 1838. This matter was referred to the editor of *The Journal* for handling.

The Journal

The editor of *The Journal* reported that he had planned to have the attorney prepare a disclaimer on the advertising carried in *The Journal* and this was approved by consent.

Future Meetings

Mental Health Congress, Chicago, October 4, 5 and 6, 1962. The secretary was instructed to be sure that the five individuals for whom the associa-

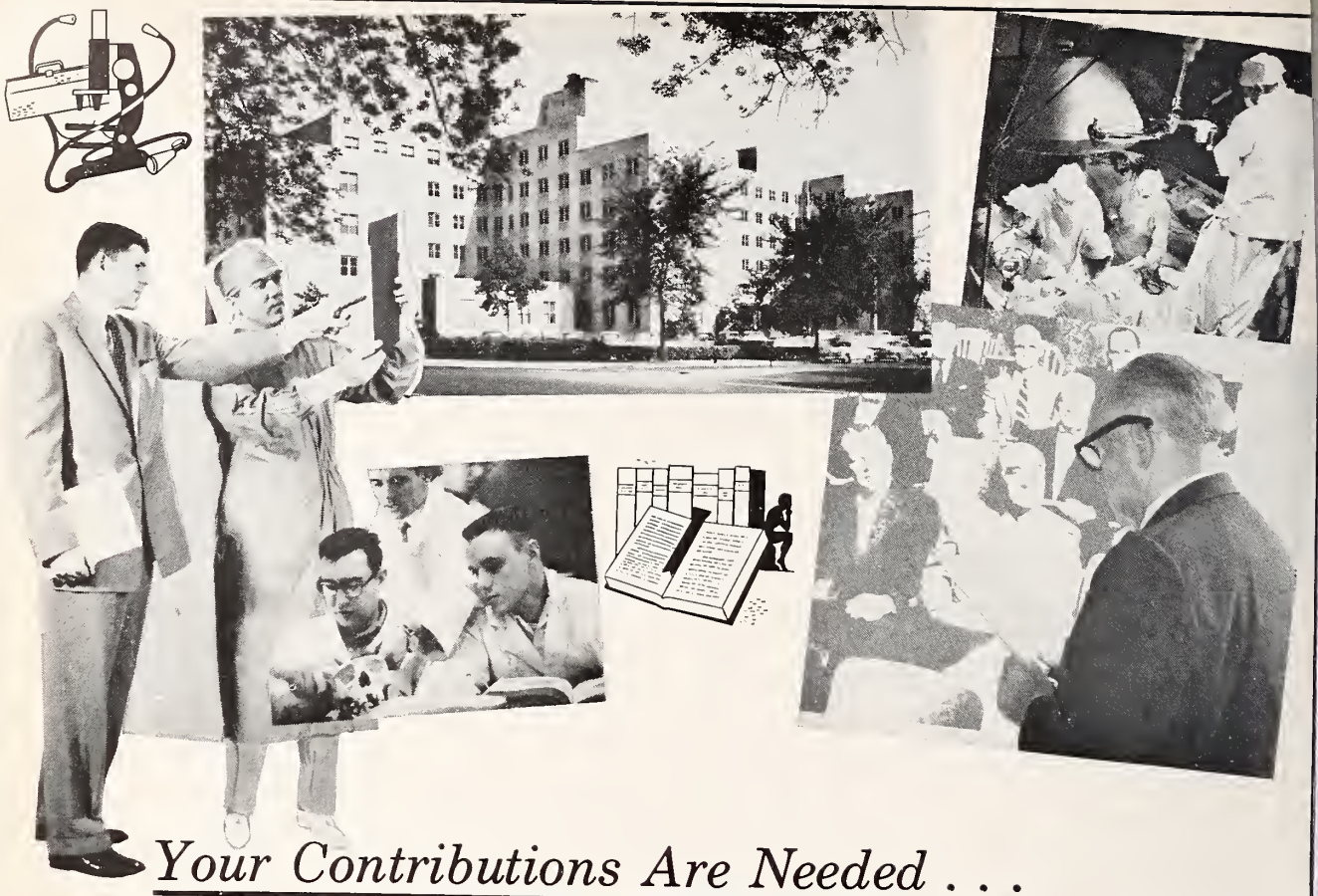
tion will pay expenses for attendance at the Mental Health Congress, to be held in Chicago, October 4 to 6, 1962, had been notified.

State Medical Editors Conference. An invitation for a representative to attend the Fourth Biennial State Medical Editors Conference, November 3 and 4, 1962, in Denver was reviewed and it was determined that inasmuch as this is not an official conference no representative would be sent.

Professional Convention Management Association, Miami, January 2-5, 1963. An invitation to the executive secretary to participate in a panel discussion at the annual meeting of the Professional Exhibitors Association in Miami, January 2 to 5, 1963, was read and the secretary was authorized to attend.

Medico-legal Symposium, Miami Beach, March 8-9, 1963. The invitation from the American Medical Association to the Indiana State Medical Association to send a representative to the Medico-legal Symposium to be held in Miami Beach, March 8 and 9, 1963, was reviewed. This matter is to be placed on the agenda for the January meeting of the Executive Committee.

There being no further business, the committee adjourned to meet at 12 noon, Sunday, October 7, 1962, in the Hoosier Jr. Room, French Lick-Sheraton Hotel, French Lick, Indiana.



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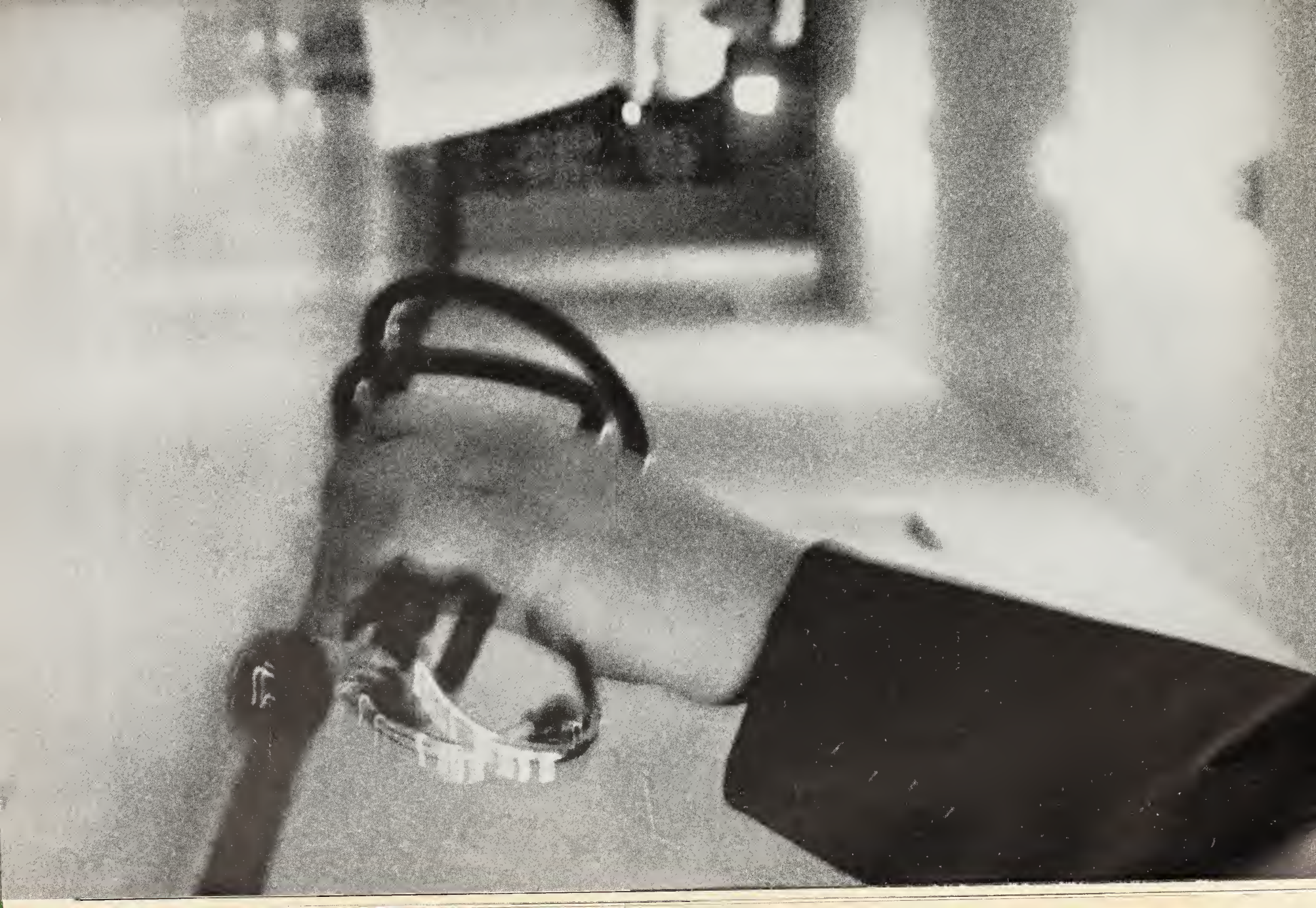
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AMA-ERF

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Education and Research Foundation
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Chicago 10, Illinois



The Journal
of the INDIANA STATE MEDICAL ASSOCIATION

December 1962

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All articles must be typewritten, double-spaced with margins of one inch.

Photographs should be printed on glossy paper. Negatives cannot be used.

Illustrations are desirable. Selection of illustrations submitted at discretion of editor and editorial board members. Cost of color illustrations must be shared by the author.

Contributors are responsible for all statements made in their articles. The editors and editorial board members may not be in agreement with all views expressed by authors, but it is desired to give all authors as great latitude as possible. However, the right is reserved to reduce in length or reject any article.

Articles are accepted for publication with the understanding that they are submitted for exclusive publication in THE JOURNAL of the Indiana State Medical Association.

Communications dealing with editorial matter should be sent to Frank B. Ramsey, M.D., Editor, 1802 North Illinois Street, Indianapolis 2, Indiana. All other communications should be sent to THE JOURNAL of the Indiana State Medical Association, 3935 N. Meridian, Indianapolis 8.

Advertising rates will be furnished on request. Copy must be received by the 5th of the month preceding month of issue. (Scientific manuscripts must be received at least two weeks earlier if geared for a specific issue.)

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Cover story
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LOOKS AT MEDICINE

This section of THE JOURNAL is devoted to the presentation of opinions which appear on the editorial pages of the public press, and which are of interest to the medical profession. Its function is to review comments which may be favorable or unfavorable to medicine. Members are invited to submit editorial clippings for this column.

He Deserves Our Thanks

It is impossible to know the number of people who are alive today because of the dedicated work of one member of the Indiana State Police.

Yet the number would probably be unbelievably large, since many of the life-saving improvements made in modern automobiles actually stem from research by State Police Lt. Elmer C. Paul. Foremost among these safety efforts is the growing trend toward seat belts which research work by Paul proved to be valuable for automobiles as well as for airplanes.

Lt. Paul, a member of the force for 20 years, conceived the idea of applying crash injury research to automobiles as well as to aviation. His idea was promptly put into effect, with him in charge, by Superintendent Robert O'Neal.

Paul's zeal took him before many leading organizations interested in safety work, such as physicians, auto manufacturers and traffic officials. They became motivated by his enthusiasm, and even now automobile manufacturers are doing research on lines pioneered by Paul. Cornell University has adopted a permanent program of research into automobile accident causes because of his missionary work.

It is regrettable that Indiana is losing the invaluable services of this man who will resign November 19 to work in the accident prevention division of the U. S. Department of Health, Education and Welfare.

Hoosiers wish him well. He can be assured that he has the deep gratitude of this state for the tremendous contribution he has made to highway safety.—*Indianapolis News*, Nov. 7, 1962.

A Help On Medical Costs

The Indiana State Medical Association, with an assist from U. S. Sen. Vance Hartke, has obtained some relief for elderly people of Indiana needing aid for medical expenses.

In 1961 the doctors' group backed a move in the state legislature extending old age assistance whereby aged residents who are able to provide for their normal living expenses could obtain help for medical expenses alone when they are unable to meet them.

But since federal money is involved in the welfare program, a ruling by the federal Department of Health, Education and Welfare complicated the program's operation.

The ruling was to the effect that a medical recipient would be eligible for aid only from the first of the month in which a county welfare board met to act on the claim.

Thus, if a recipient was hospitalized after the county board meeting during a given month, costs of his care from that date until the first of the next month would not be covered.

The doctor's association took the matter up with Indiana's congressional delegation. The association wrote an amendment to the federal welfare department's appropriation bill and Sen. Hartke sponsored it.

Congress, it is understood, has now passed the amendment, which is to take

Continued

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1. Groskloss, H.H., Clancy, C.L., Healey, E.F., McCann, W.J., Maloney, F.D., Loritz, A.F.: Clinical Medicine (Sept.) 1955.

Study involving 287 patients. 261 patients experienced excellent to good results with Bonadoxin for relief of nausea and vomiting of pregnancy. No side effects reported.[1]

2. Albertson, H.A., Trout, Jr., H.H., Daily, F.W.: The American Journal of Surgery (Sept.) 1956.

"As a result of this study, it is our belief that the routine prophylactic use of the combination of meclizine hydrochloride and pyridoxine is a safe and effective method for lessening the incidence of postoperative nausea and vomiting. We are employing this preparation as a routine pre-operative medication."[2]

3. Goldsmith, J.W.: Minn. Med. (Feb.) 1957.

Study involving 620 patients, 537 patients experienced moderate to complete improvement of nausea and vomiting of pregnancy with Bonadoxin. Toxicity and intolerance to the medication in the dosage employed in these studies was zero.[3]

4. Codling, J.W.; Lowden, R.J.: Northwest Med. (March) 1958.

Study involving 76 pregnant patients with nausea and vomiting. The results indicated an overall response in 70 of 76 patients treated. No side reactions were observed in this clinical study.[4]

5. Bentley, M.D.: Journal of the Mich. State Med. Soc. (Sept.) 1959.

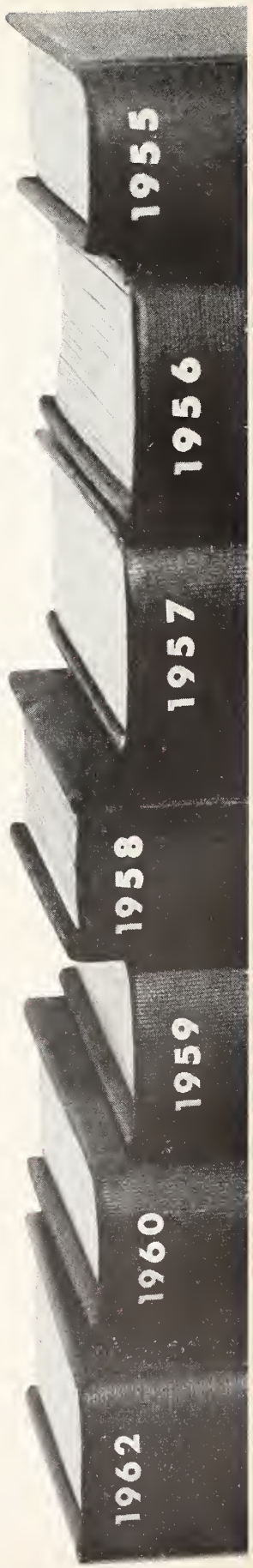
[Bonadoxin] "was found clinically effective in the prevention of pre-operative and post-operative nausea and emesis in 157 patients who underwent ocular surgery, while control drugs alone could not completely eliminate the symptoms. Bonadoxin did not cause side reactions in the preoperative or postoperative phase of this study."[5]

6. Bethea, R.C.: International Record of Med. (May) 1960.

"Our investigation of this drug indicates that in 88 per cent of the cases satisfactory relief of the distressing symptoms of early pregnancy was obtained without undesirable side effects, including sedation."[6]

7. Sklaroff, D.M.; Karayannis, N.: Current Therapeutic Research (June) 1962.

"Based on these results, indicating 92 per cent effectiveness, meclizine-pyridoxine (Bonadoxin®) may be considered a valuable compound in the control of post-irradiation nausea and vomiting. The preparation proved to be safe and fast-acting in bringing therapeutic relief to carcinoma patients with radiation sickness."[7]



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FOURTH ESTATE

Continued

effect Sept. 30. It provides that state assistance for hospitalization can be claimed any time within 90 days after the date of admission to a hospital.

Certainly there was a need to provide this protection for those who cannot stretch their resources to cover medical costs.—*Kokomo Tribune,* July 23, 1962.

Old Ben Was Right

The other day while engaged in our biennial reading of Benjamin Franklin's Autobiography and some other selected writings of his we noted with interest a short piece he wrote called, "On The Price Of Corn And Management Of The Poor."

It seems that the British government of the time had just fixed the price of corn at a low level—while at the same time prohibiting the export of wool—with the idea that this would make it possible for the poor to buy corn. Franklin called this "a tax on the farmers for the maintenance of the poor."

He went on to say something that certainly applies as much to today's world as it did to his. "For my own part, I am not so well satisfied of the goodness of this thing. I am for doing good to the poor, but I differ in opinion about the means. I think the best way of doing good to the poor is not making them easy in poverty, but leading or driving them out of it.

"In my youth I traveled much, and I observed in different countries, that the more public provisions were made for the poor, the less they provided for themselves, and of course became poorer. And, on the contrary, the less was done for them, the more they did for themselves, and became richer.

"There is no country in the world where so many provisions are established for them; so many hospitals receive them when they are sick or lame, founded and maintained by voluntary charities; so many almshouses for the aged of both sexes, together with a solemn general law made by the rich to subject their estates to a heavy tax for the support of the poor. Under all these obligations are the poor modest, humble and thankful? And do they use their best endeavors to maintain themselves, and lighten our shoulders of this burden? On the contrary, I affirm that there is no country in the world in which the poor are more idle, dissolute, drunken and insolent.

"The day you passed that act, you took away from before their eyes the greatest of all inducements to industry, frugality, and sobriety, by giving them a dependence on somewhat else than a careful accumulation during youth and health, for support in age or sickness.

"In short you offered a premium for the encouragement of idleness, and you should not now wonder that it has had its effect in the increase of poverty. Repeal that law and you will soon see a change in their manners . . . 'Six days shalt thou labor,' though one of the old commandments long treated as out of date, will again be looked upon as a respectable precept, industry will increase, and with it plenty among the lower people. Their circumstances will mend, and more will be done for their happiness by inuring them to provide for themselves, than could be done by dividing all your estates among them."

And he added, "I say, when you are sure you have got a good principle, stick to it, and carry it through."

Well, as the French say, "Plus ca change, plus c'est la meme chose." The more things change the more they remain the same. We are still having our troubles from fixing the price of corn. And we still have the problems of welfare for the poor as revelations

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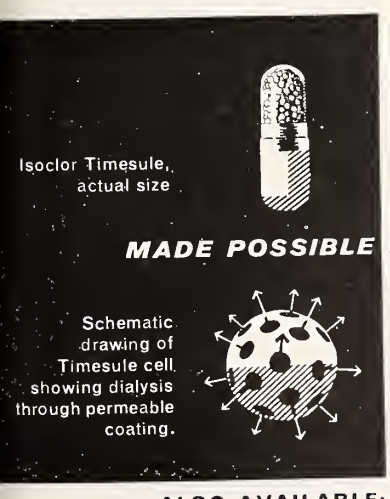
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in Washington, D. C. and Newburgh, N. Y. and elsewhere have made plain. Why, after all these years?

Because we have not yet learned from the wisdom of Ben Franklin or the lessons of experience that you cannot repeal human nature. Laws and programs that do not take human nature into account—from prohibition to price fixing to easy welfare—just don't work.—*Indianapolis Star*, Sept. 4, 1962.

Take Time To Be Sure

The Food and Drug Administration has come up with what appear to be some moderate plans for tightening the regulation of new drug testing.

One new rule would require notification of the FDA, with details, when the testing of a new drug on humans is begun. It does seem that this is something the FDA ought to know. Another would specify that testing on humans must be preceded by adequate testing in the laboratory and with animals. That seems sensible. A third new rule would require "full reports" to the FDA as testing proceeds, to indicate tests are properly planned and carried out, and to give timely warning of adverse effects. Again, these are things the FDA should know about.

At first glance, these new rules look good.

So did thalidomide. In fact, it looked extra good. The role of sleeping pills in suicide, and occasionally in accidental death, has been in a lot of minds the last few days as a result of the death of Marilyn Monroe. Here was a drug—thalidomide—which was remarkably effective for inducing sleep yet which even in massive overdose would not kill. Yes, it looked good.

Bearing that in mind, let's not grab up these new rules and put them into effect just because they seem to be all right. Let's do some testing.

Each one of these is a rule which has not been applied before. Why not? Have they been considered before, and rejected because of negative indications?

Would the testing notification and progress reports pour into the offices of FDA a flood of new paperwork it is not equipped to handle? Would the effort to keep these reports sorted out, collated and interpreted absorb energy and facilities which would be better used on other work? Would the requirement of gathering information for and preparing these reports distract the attention of the investigators, to the detriment of the testing in which they are engaged?

Is it feasible to draft a set of simple but effective standards for the adequacy of preclinical testing, so that an official in the FDA offices can look at the notification reports and tell quickly whether or not the preliminary work was all right? There may be many other questions which ought to be answered before these or other new rules are placed in force.

The same goes for new restrictions being injected into drug legislation pending in the Senate. As an example, one amendment to the bill would empower the FDA to pull a licensed drug off the market immediately, by a simple order, on receipt of indication that it may be unsafe. It might seem that of course this is exactly what should be done. But should it? Who is to judge what evidence shows that a drug, previously approved, is unsafe? What about patients in the middle of treatment with it, and apparently making progress? Would lives be saved—or endangered—by such action?

While the urge to "do something about the drug situation" continues to run high, let's sit back a minute and remember a couple of important things about the thalidomide scare. First, so far there have not been any reports of deformed babies from testing of the drug *in this country*. So there is not any justification, so far, for discrediting the *American* testing system. Second, the drug *was not approved* for sale in this country. The American laws and rules *were already tight enough* to prevent licensing and marketing of this drug.

So let's take it a little easy. We're dealing with a system of developing, testing, approving and marketing drugs in this country, which is already pretty good. Maybe it can be improved. But let's be very sure that changes will make it better, not worse. —*Indianapolis Star*, August 17, 1962. ◄

The Journal of the INDIANA STATE MEDICAL ASSOCIATION

Supervised by THE COUNCIL

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"In this subject of human chromosomal anomalies, we are all beginners. It is so new that even the old hands were new themselves two years ago. It has travelled so fast that it has shot past the average reader before he has had time to notice that it has begun to move and he begins already to be frightened of it. This is a pity: the chromosomes are still essentially very simple."—Bernard Lennox, M.D., Chromosomes for Beginners, Lancet (London) May 13, 1961.

Clinical Cytogenetics*

CATHERINE GARDELLA PALMER, Ph.D.†
Indianapolis

ALTHOUGH CYTOGENETICS is a new field in medicine, the relationship of chromosome behavior and genetic phenomena has been studied in detail in plants and invertebrates for a number of years. Chromosomal behavior in man does not seem unique and analogies with that of lower forms are readily made.

About 100 years ago, chromosomes were first observed in ordinary cell division and in the divisions prior to gamete formation. During the early years of this century, a merging of interests of cytologists and breeders and the rediscovery of Mendel's work resulted in the origin of genetics as a scientific discipline. Recently, cytogeneticists and physicians have collaborated in the study of the relationship of chromosomal abnormalities to human disease.

Observations on human chromosomes appear to have been initiated in the 1880's but it was not until 30 years later that any constancy of chromosome number was reported. The investigators of that era studied the chromosomes in testicular biopsy from recently hanged criminals or from patients in mental hospitals (some of the latter have been found recently to have abnormal chromosome numbers). Their technics were those of paraffin embedding, sectioning and counting the chromosomes in serial sections—an extremely arduous and inaccurate method.

Tissue Cultures Aid Human Study

In the past 25 years there have been rapid advances in cytological technics. A number of these methods have contributed to the study of human chromosomes. Small

* To be published in two parts.

† From the department of Medicine, Medical Genetics Program and Cancer Research, Indiana University Medical Center.

fragments of skin, bone marrow or leukocytes from peripheral blood growing in tissue culture provide dividing cells. Colchicine is used to inhibit the mitotic spindle in order to accumulate metaphases. Hypotonic citrate or saline may be used to swell the cells so that the chromosomes are separated from each other in the cytoplasm. With these methods, Tjio and Levan[15] established that there are 46 chromosomes in the normal somatic cells of man (22 paired autosomes and 2 sex chromosomes). Detailed morphological study of the human chromosomes is now possible. Readily apparent among these morphological details:

a. The position of the *centromere,* the region of the chromosome intimately associated with the spindle during division.
b. The relative length of the chromosome and its arms.
c. The presence of constricted areas along the chromosome length.

These characteristics are illustrated in Figure 1. Using a combination of such observations, the 46 chromosomes may be grouped into seven classes. The centromere position is especially useful in this morphological grouping. The spindle attachment region may be terminal, median or in a submedian position. Those chromosomes with a median centromere are referred to as *metacentrics;* those with a terminal centromere as *acrocentrics* or *telocentrics;* and those with an intermediate positioning of centromere as *sub-metacentrics.* The centromere region appears as a constriction in the chromosome and may be referred to as the *primary constriction.* Other, *"secondary" constrictions* may be present and characteristic for definite chromosomes. The most outstanding of secondary constrictions are those associated with the *satellites.* These regions are thought to be involved in nucleolar organization and occur on specific chromosomes.

A uniform method of grouping chromosomes has been defined. Figures 2 and 3 are *karyograms* (photographs of chromosomes from single nuclei grouped according to size and centromere position) of normal female and male chromosome complements.

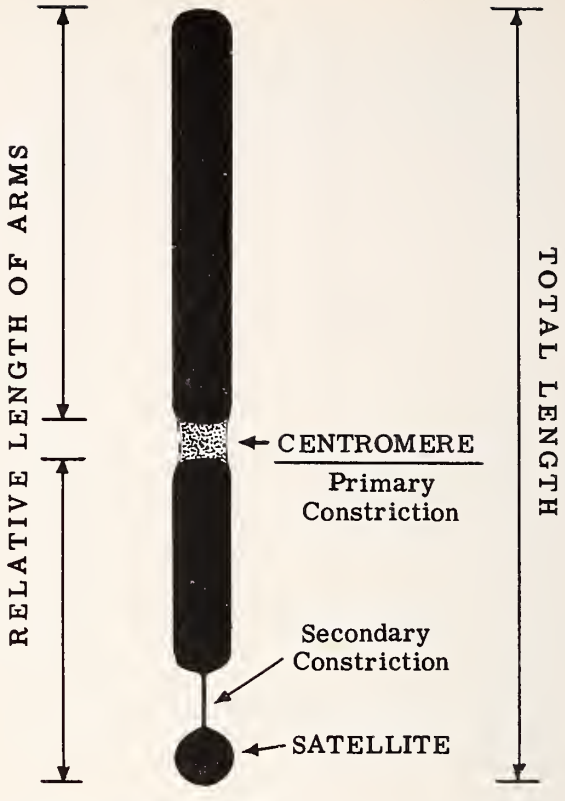


FIGURE 1

IDEALIZED DIAGRAM of a chromosome showing salient morphological characteristics.

It is important to realize that this grouping and classification would not be possible if there were not a constancy of morphology and number of chromosomes from cell to cell and individual to individual within the human species.

Regularity in number and form of the chromosomes results from two highly evolved processes—meiosis and mitosis—which are present in all sexually reproducing animals and plants.

Redistribution of Genes

The process of *mitosis* (Figure 4) insures the equal distribution of the genetic endowments (*genomes*) to each cell in the organism. It involves a replication of each chromosome and a separation of the two halves (*chromatids*) at each cell division. Each cell in each individual contains the *diploid* (2n) number of chromosomes (or 46, 23 pairs in man).

During the production of the egg and sperm, the mechanism for maintaining the constancy of a chromosome number within

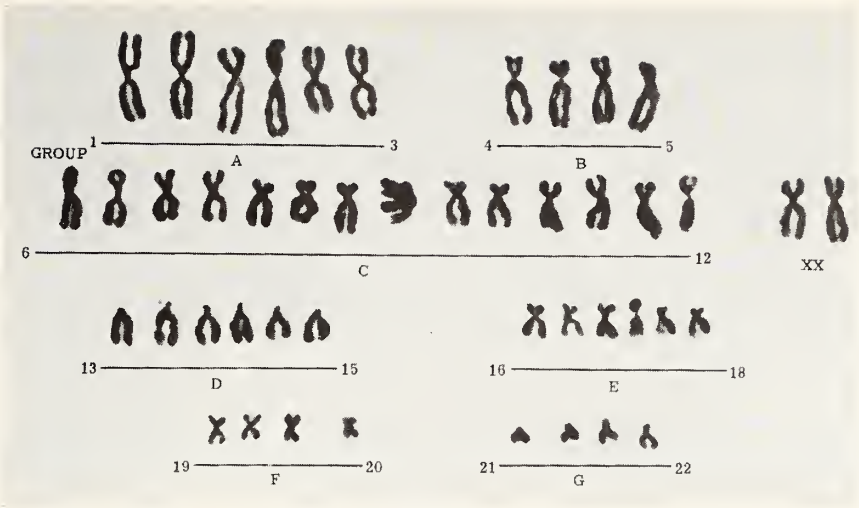


FIGURE 2

KARYOGRAM of chromosomes of a normal female. Notice the chromosomes of Group A are large metacentric to submetacentric. Group B—submetacentric, but smaller than A. Group C and X chromosomes are in an intermediate range with no immediately perceptible differentiation. Group D is telocentric with satellites on all 6 of the chromosomes. Group E—submetacentric and smaller than C, but larger than group F, the latter comprising the short metacentric chromosomes. Group G—chromosomes consist of small telocentric chromosomes all of which are satellited.

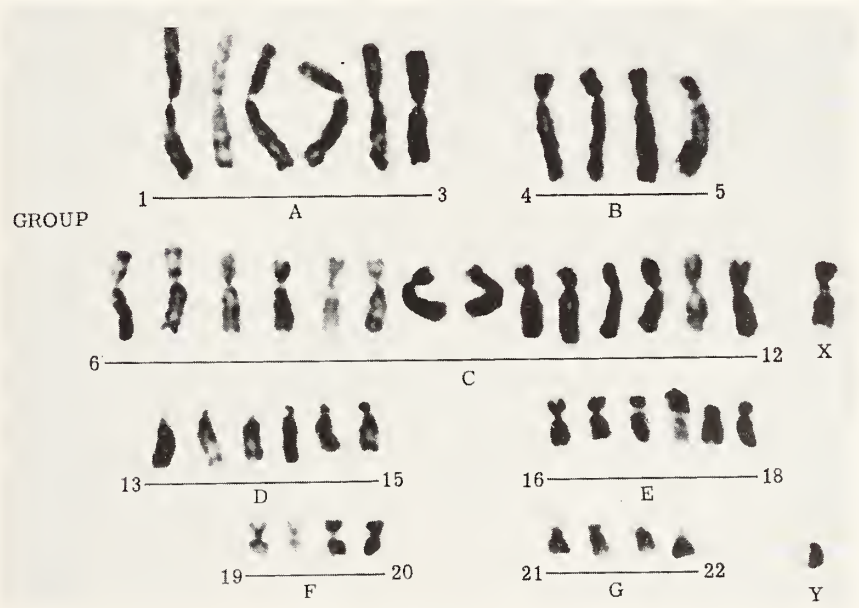


FIGURE 3

KARYOGRAM of chromosomes of a normal male. The male cell bears the X and Y chromosomes rather than 2 X's. The Y chromosome is not satellited. This cell is in an earlier stage of mitosis than the cell in Figure 2; hence the arms of the chromosomes have not separated.

the species is evident. *Meiotic* division results in halving of the chromosome number and in the random redistribution of maternal and paternal genes (Figure 5). The meiotic process consists of a single replication of the chromosomes and two consecutive cell divisions. During the early stages there is pairing of like chromosomes (*homologs*) of maternal and paternal origin. In this paired condition, exchange of

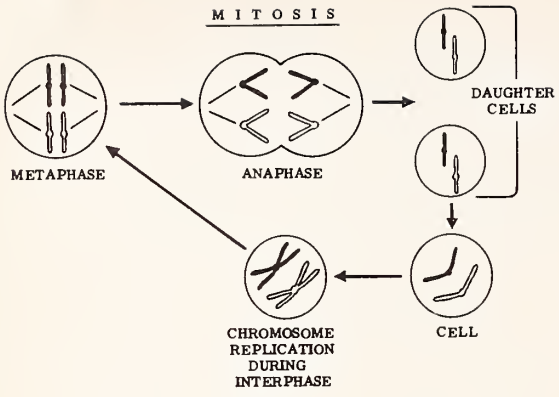


FIGURE 4

DIAGRAM of mitotic division (Figures 4, 5 and 6 represent hypotheticol cells with two chromosomes).

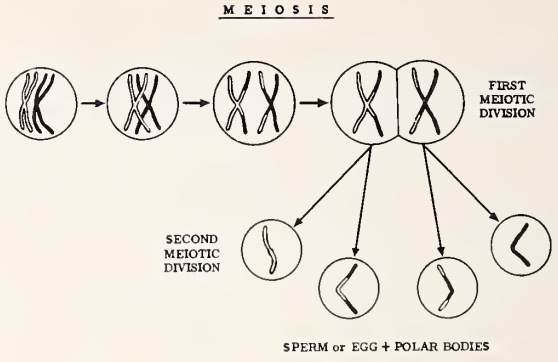


FIGURE 5

MEIOTIC DIVISION—reduces the number of chromosomes in a cell by half ond redistributes moternolly (white) ond poternolly (black) derived segments. In oddition, random distribution of other non-homologous chromosomes occurs.

material occurs between members of a pair and is termed *crossing-over.*

The chromosomes line up on a metaphase plate and paired homologous chromosomes separate to opposite poles (anaphase). This results in an effective halving of the chromosome number. The relative positioning of the pairs of chromosomes on the meiotic metaphase plate is a fortuitous one, and results in a random distribution of maternally and paternally derived chromosomes to the poles at anaphase. Subsequently, a second equational division distributes the end product of a crossing-over to the gametes. Thus, each egg and sperm has a single chromosome of each type but differs in the relative amount of maternally or paternally derived genes.

The process not only halves the chromosome number and enables the chromosome number of the species to be reconstituted at fertilization, but also effectively reshuffles and redistributes the genes from either parent. It is the physical basis of the laws observed by Mendel and later-day geneticists.

Abnormalities of chromosome number arise from unequal distribution of chromosomes either during cell division or in the production of the gametes. One type of abnormality which may occur is failure to complete the reductional (meiotic) process leading to the development of a diploid gamete or gametes. This phenomenon has been exploited by plant breeders who are seeking unusually large flowers or fruits. The cells will have a multiple other than two of the haploid chromosome number (n). This is polyploidy. If the progeny has three complete sets of chromosomes, such as one would encounter if a diploid egg were fertilized with a haploid sperm, the offspring is *triploid* (3n), or if the offspring has four sets of chromosomes, *tetraploid* (4n).

A type of variation in chromosome number which occurs in human anomalies is *aneuploidy,* in which one or more whole chromosomes may be in excess or may be absent. If an individual's cells bear one extra chromosome in addition to the normal pair, the cell is then said to be *trisomic;* if it is lacking in one chromosome it is *monosomic.* Such unusual cells result from an abnormal distribution of the chromosomes termed *non-disjunction* (Figure 6). This process may occur during divisions prior to production of the egg or sperm or during cleavage or post-natal life.

Extra Chromosomes Create Problems

In non-disjunction, a pair of chromosomes or *chromatids* (half chromosomes) fail to separate and both members go to the same pole, thus producing two abnormal daughter cells, one having an extra and the other one lacking a chromosome. At present, trisomy is the best documented of the chromosomal anomalies in man. The extra chromosome(s) might be one of the chromosomes related to sex determination, the X or Y chromosome, or the other chromo-

somes of the cell, the *autosomes*. A number of syndromes have been associated with a single extra autosome in the cells of abnormal individuals. For example, the presence of an extra group "G" chromosome (chromosome 21) in mongolism (Down's syndrome). Clinical manifestations of several other trisomic syndromes have also been defined. The extra chromosomes belong to groups D and E and the syndromes are so designated. Salient clinical manifestations of the autosomal trisomy syndromes are listed in Table 1.

Aneuploidy arising from non-disjunction of *sex chromosomes* has been well described. Individuals with unusual numbers of sex chromosomes may be readily identified by a simple test which requires only scrapings of the buccal mucosa of the patient. In stained preparations from such scrapings, or those from vaginal epithelium, nuclei of females are found to bear a single characteristic *sex chromatin* or "*Barr*" body. Male buccal mucosa cells lack this deeply staining body. The current concept of sex chromatin[5] relates it to the inactivity of all but one X chromosome. This single X behaves during the cycle of divisions in a manner similar to the autosomes. X chromosomes in excess to the functional chromosome become heteropycnotic, that is, condensed and stainable in metabolic nuclei. These heteropycnotic chromosomes or segments appear to be out of phase with the remainder of the cell in incorporation of nucleic acids and gene

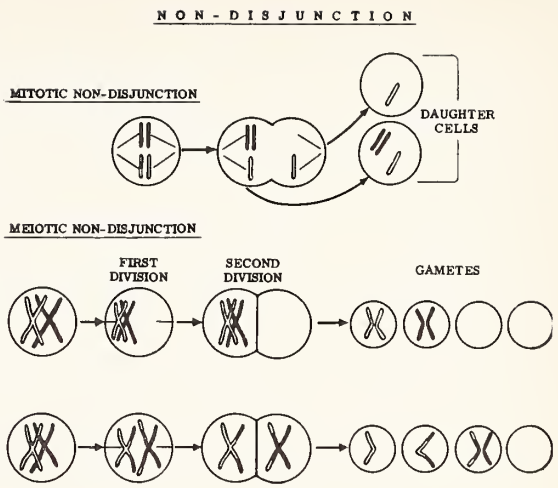


FIGURE 6

NON-DISJUNCTION results from an abnormal cell division which distributes chromosomes or chromatids unequally. The abnormality may occur in mitotic divisions, especially during embryo development, and in the divisions leading to the production of gametes.

AUTOSOMAL TRISOMY SYNDROMES*

Extra Chromosome and Group	Most Frequent Anomalies
21 or 22 ("G")	Mongoloid syndrome: Short stature, stumpy limbs, small round head, typical facies, protruding fissured tongue, epicanthal folds, oblique palpebral fissures, single transverse palmar crease with single interphalangeal crease on little finger, mental retardation.
18 ("E")	Failure to thrive, flexion fingers, index finger overlapping third, low set and malformed ears, micrognathia, defectively ossified and short sternum, inguinal or umbilical hernia, hypertonicity, limited hip abduction, interventricular septal defect, mental retardation, dorsiflexion of big toes.
Group 13-15 ("D")	Seizures, deafness, eye defects (anopthalmia, micropthalmia, colobomata), hyperconvex fingernails, cleft palate, harelip, hemangiomata, horizontal palmar creases, interventricular septal defect, polydactyly, rocker-bottom feet, mental retardation.

* Individuals phenotypically identical to these syndromes with 46 "apparently normal" chromosomes have been observed.

Table 1

SOME VARIATIONS IN SEX CHROMOSOMES AND PHENOTYPES

Sex Chromosomes	Sex Chromatin*	Probable time of Non-disjunction	Clinical Condition
XO	—	Gametogenesis	Turner's syndrome
XY	—	None	Normal male
XYY	—	Gametogenesis or Cleavage	Male, benign congenital hypotonia, undescended testes, delayed bone age, mental retardation
XXY	+	Gametogenesis	Klinefelter's syndrome
XXYY	+	Gametogenesis and Cleavage	Klinefelter's syndrome
XXXY	++	Gametogenesis and Cleavage	Klinefelter's syndrome
XXXXY	+++	Gametogenesis and/or Cleavage	Mental retardation, Eunuchoidism, multiple skeletal defects
XXXX	+++	Gametogenesis or Cleavage	Mentally defective, normal reproductive system
XXX	++	Gametogenesis or Cleavage	Mentally retarded and fertile, ovarian hypofunction, ± early menopause
XX	+	None	Normal female
Mosaics			
XX/XXY	+	Gametogenesis and Cleavage	Klinefelter's syndrome
XX/XO	+ or weak +	Cleavage	Turner's syndrome
XO/XXX	++	Cleavage	Turner's syndrome
XY/XO/XX	—	Cleavage	Male Pseudohermaphrodite

* — = Absent; + = Present; ++ = 2 Barr bodies; +++ = 3 Barr bodies

Table 2

replication and are referred to as *"heterochromatic"* chromosomes or segments.

Thus, the normal male, having only one X (and one Y), has no sex chromatin discernable. The normal female with two X's has one Barr body. Individuals with extra sex chromatin bodies have also been observed as well as some patients whose sex chromatin characteristics do not correspond to the clinical sex (phenotype) of the individual.

Subsequent chromosomal studies of these individuals have made it clear that persons with anomalous sex chromatin had corresponding abnormal numbers of sex chromosomes. Some of the more common variations in sex chromosome number and clinical characteristics are listed in Table 2.

(To be concluded in the January, 1963 issue.)

GLOSSARY

Acrocentric: A chromosome with centromere attachment close to one end, subterminal.

Anaphase: The stage of mitosis in which the chromosomes separate and proceed toward the opposite poles of the spindle.

Aneuploidy: A condition in which there is an irregular number of chromosomes, i.e., not a good multiple of normal set—as in man 46 + 1 or 46 — 1 are aneuploid numbers.

Autosome: Any chromosomes of a cell exclusive of the sex chromosomes.

"Barr" body: The sex chromatin of a nucleus, usually observed as a small, lateral and darkly staining body in the metabolic nucleus. Normally found only in female cells.

Centromere: The point of a chromosome at which the spindle fibers originate. It appears as a non-staining area or constriction in the chromosome and, as such is a readily recognizable morphological feature.

Chiasma: (Plural-Chiasmata) The crossing of two non-sister chromatids in meiosis resulting

from prior (genetic) exchange of segments of two paired chromosomes.

Chromatids: The associated half chromosomes resulting from longitudinal duplication of a chromosome. The sister chromatids are held together at the centromere until they separate at anaphase.

Crossing-over: The exchanges between paired chromatids of groups of genes during prophase of meiosis resulting in re-combination of genes of one chromosome pair.

Cytogenetics: That field of genetics in which an attempt is made to correlate chromosomal and genetic observations.

Deletion: The loss of a segment of a chromosome by chromosome breakage.

Diploid: The "two ploid" (2n) condition (i.e., having two sets of chromosomes) found in the fertilized egg and in somatic cells of man.

Gamete: A mature germ cell—the egg or sperm.

Genome: The complete diploid set of chromosomes of an individual.

Haploid: A cell having only one set of chromosomes, such as the egg or sperm (1n).

Heterozygote: A zygote, (i.e., fertilized egg) having unlike members of a pair of genes (*alleles*) controlling a certain character.

Idiogram: The diagrammatic representation of the chromosomes of an individual based on measurements of chromosomes of several or many cells.

Insertion: A type of chromosomal aberration in which a segment of one chromosome is inserted into another unlike chromosome.

Isochromosome: An equal-armed chromosome resulting from mis-division of the centromere in a transverse rather than a longitudinal plane.

Karyotype: A systematized array of chromosomes of a single cell prepared by drawing or photography—typifying the chromosomes of an individual or species.

Meiosis: The reductional divisions which result in a halving of the chromosome number and which precede gamete formation in man.

Metacentric: A chromosome having the centromere in the median position; the chromosome arms are of equal length.

Metaphase: The stage of division in which the chromosomes are aligned at the middle of the spindle. The chromosomes exhibit characteristics of contraction at this stage and are recognizable as metaphase chromosomes even in situations where no spindle is present, i.e., colchicine-arrested metaphase.

Mitosis: The regular division of somatic cells. (See text.)

Mosaicism: A situation in which one area of an organism has one genetic or chromosomal type and another area a different genetic composition.

Non-disjunction: A condition in which both chromosomes of a pair at meiosis (or both chromatids at mitosis) go to the same cell.

Phenotype: The visible characteristic (i.e., the clinical picture).

Polyploidy: The presence of exact multiples of basic chromosome number—i.e., of complete extra *sets* of chromosomes.

Replication: Production of like-deoxyribonucleic acid molecules in the chromosome. This is to be differentiated from morphological duplication of the chromosome and precedes the latter.

Satellite: An appendage of a chromosome frequently associated with nucleolar organization. Appears like a small knob or fragment attached by a thread to the chromosome. These occur *only* on certain chromosomes and are therefore good morphological markers.

Sub-metacentric: A chromosome with the centromere in a sub-median position, i.e., between a median and terminal position.

Telocentric: A chromosome with the centromere attached at the end. The terms acrocentric and telocentric are often used synonomously, but there is a slight difference in meaning.

Tetraploid: A polyploid cell or organism having four sets of chromosomes (4n).

Translocation: The transfer of a segment of one chromosome to another unlike chromosome.

Triploid: A cell having three complete sets of chromosomes (3n).

Trisomy: An aneuploid condition in which one chromosome is represented three times instead of the normal two. *Partial trisomy,* a situation in which a part of a chromosome is represented three times. ◄

Acne: Treatment of Individual Lesions

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EVEN THOUGH ACNE is basically a systemic disorder, it is our experience that the most apparent and quickest results are obtained when treatment is directed at the individual lesion.

For the past two years, we have employed an agent† which has been more effective in involuting individual lesions than any other topical adjunct. This agent has been described in the literature.[1, 2] This study covers 460 acne cases.

Method of Application

In most cases the medication was rubbed into the individual lesions once daily at bedtime. In those cases exhibiting extreme oiliness, the medication was used as a cosmetic foundation base two to three times daily.

In 331 of the 460 cases of acne, diet and systemic medications were employed. In 129 cases, the medication was the sole therapy employed in addition to dietary and hygienic measures. In 335 cases, a special acne cleanser containing a combination of anionic wetting agents, sulfur, salicylic acid and hexachlorophene was employed.

The patients were instructed that the areas may become inflamed and turn a deep tan to dusky-red brown. This darkening of the skin gives the appearance of hyperpigmentation, although it is not. When this occurred, the patient then discontinued the applications.

Results

The therapeutic efficacy of the medication was based on the following observations. Upon close examination, it was noted that a localized "hyper-reactive" area was evidenced in 135 cases. At first, this action might be mistaken for a localized sensitization. However, it was found (1) that these activated areas would desquamate and completely involute leaving a smooth, pink surface, and (2) that the medication was tolerated without this sign in those patients who discontinued its use for a couple of days and then resumed therapy. The latter observation confirms the reports of the previous investigators.

In most cases, the individual lesions would dry, peel and involute without any evidence of an acute reaction at the site. Approximately the same degree of reaction and effect was noted with the agent alone or its combination with hydrocortisone.

Lesions about the ala-nasi and the perioral areas were particularly responsive to the medication and the patients were instructed to pay special attention to application of the medications in these areas.

The reactivity to the medication is not to be mistaken as an undesirable side effect. Paradoxically, this reactivity is what is required to directly attack the acne lesion. This new agent probably affords the best single topical treatment of acne lesions. It merits use as an adjunct to therapy in most cases of acne, provided that patients are instructed to anticipate the therapeutic effects.

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† Fostril, Fostril HC manufactured by Westwood Pharmaceuticals, Buffalo, N. Y.

REFERENCES

1. Bluefarb, S. M., Schmitt, C. L., Howell, C. M., Jr.: Topical Drying Agents for Acne, *J.A.M.A.* 173:40, May 7, 1960.

2. Blau, S., Kanof, N. B.: Polyoxyethylene Lauryl Ether, *A.M.A. Arch. Dermat.* 82:266, Aug., 1960.

Precocious Puberty in the Female

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ONE COULD NOT say that precocious puberty, particularly in females, is unusual. However, when the age of onset reaches down into the pre-school age it is not only rather uncommon but is usually a shock to the parents. Before the subject can be discussed with comprehension it is necessary that there be a mutual understanding of terms. Thus, Greenblatt et al. make the following statement: "Precocious puberty refers only to those cases of isosexual precocity in which there is *a priori* maturation of the gonads at an abnormally early age, while sexual precocity is considered to be present when some or all of the secondary sexual characteristics become apparent before the age of nine, regardless of etiology, and includes true precocious puberty as well as pseudoprecocious puberty."[1]

With this understanding of terms one might consider that, when no etiologic factor can be found, the onset of puberty at an early age is, by definition, a physiologic process. This would be the case unless the actual cause is simply so well hidden that it is undiscoverable. Be that as it may, when an *infant* begins to menstruate, the first thought of most physicians is likely to be the alarming one that the child has serious, life-threatening trouble. However, one should first consider that even such an early indication of the onset of puberty as this is still probably constitutional and then proceed to rule out other causes.[2] It would be logical to look in three places for such causes: (a) the adrenal, (b) the pineal or hypothalamic area, (c) the gonads.

Novak considered that true precocious puberty, speaking of the female, is likely to be confused with only one form of puberty associated with pathology located in one of these three places, namely—that associated with a granulosa cell tumor.[3] Ariel and Pack also state that true precocious puberty of an idiopathic form, female, of course, "occurs in from 75% to 90% of these sexually precocious children, and with greater numerical frequency than do all the other types combined. . . . The children undergo normal puberal development at an abnormally early age and progress from infancy to puberty with no transitional stage of childhood." Then they go on to say that the premature puberty may be associated with an ovarian tumor or a cerebral lesion. However, such granulosa cell tumors are usually palpable per rectum or through the abdomen, although examination under anesthesia may at times be necessary.[4]

Constitutional Phenomenon or Tumor

Without belaboring the point any further it suffices to say that there are numerous case reports to substantiate these claims relating to precocious puberty as a constitutional phenomenon. If one encounters such a patient it might be proper to reason somewhat as follows: The precocity is probably constitutional, in which case there is no hurry at all. If it is not constitutional it is likely to be due to a granulosa cell tumor. Since these are usually palpable and the incidence of malignancy in children is low[5] there is no need to immediately jump to any premature surgical conclusions. "Of fundamental importance in the management of sexual precocity is proper psychologic orientation of the child. . . . From a therapeutic standpoint, then, studied neglect with wise counselling is, at present, the sole avenue of approach to this innocuous condition."[6] These are strong words indeed, but they give courage to those of us who would rather watch and wait.

The hormonal relationships involved in precocious puberty are indicated in the accompanying diagram. The following hor-

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mones need to be considered: (a) gonadotropins, both pituitary and chorionic, (b) estrogen, (c) 17-ketosteroids. Determination of the gonadotropin level is not likely to be of much help unless, of course, chorionic gonadotropin is found. In this case one would suspect a teratoma, and pregnancy tests might be positive. A level of pituitary gonadotropin too low to register would be of little help, but an appreciable level would lend support to a diagnosis of precocity on a constitutional basis. The mere fact that the patient menstruates would indicate the presence of estrogen, but examination of a vaginal smear for cornification of the epithelium is a simple matter. Determination of the 24-hour urinary output of 17-ketosteroids may be of a little help. There should be a low level, say 2 or so milligrams.

In addition to these tests it may be helpful to follow the bone age by x-ray examination, although periodic measurement of height is a poor man's way of gleaning the same information. These children grow rapidly, having their puberty spurt at an early age.

Adulthood Normal

What can one expect as these children grow older? Some will menstruate with more or less regularity, become regular eventually, go on through a normal female life and have menopause at the expected age or maybe even a little later. In an occasional one the signs of puberty will subside and then reappear later at a more appropriate age. If the signs of puberty continue, the patient may for a time have the customary anovulatory menstruations, later becoming ovulatory. This is a contrast to that which prevails in pseudoprecocious puberty, in which case ovulation does not occur. Pregnancy may occur at an extremely early age and the child must be protected from depraved marauders. Breast development and sexual hair appear with varying degrees of rapidity and extent. These children grow very rapidly at first so that they are tall for their age. However, their epiphyses close early so that in the final outcome they are short adults, not seriously dwarfed, but simply short individuals.

Probably the greatest problems are psychological or emotional. This involves the parents particularly, frequently the mother, but surprisingly often, the father also. It requires much professional restraint to forestall or prevent intervention by the surgically curious. With pressure to do something — anything — it also demands courageous refusal on the part of the physician to be a part to the administration of all sorts of meddlesome medication in an ill-advised effort to alter the patient's precocious state of sexual affairs.

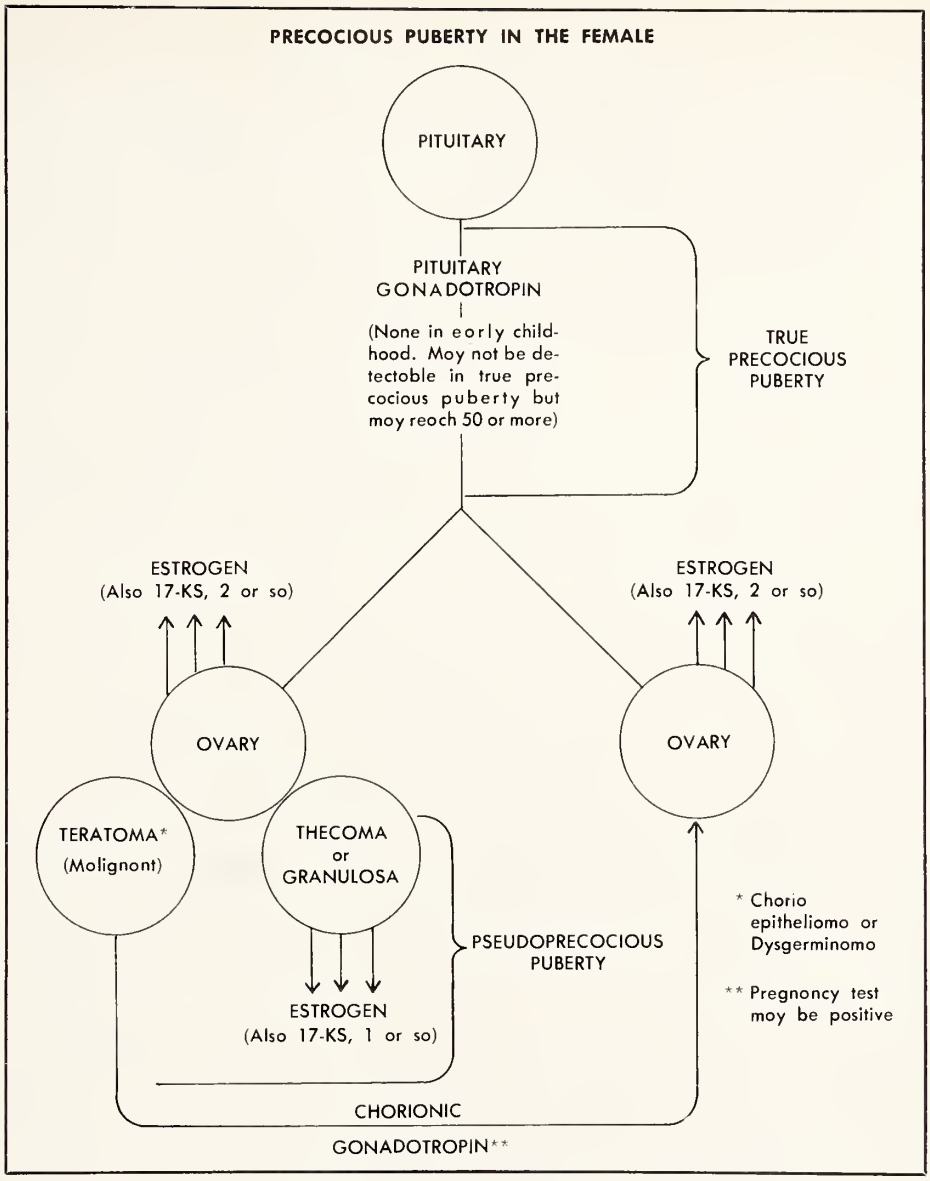
Case Report

The patient was a pretty little blonde girl first seen at about 16 months of age. Her mother brought her for examination because of vaginal bleeding and swollen breasts. This was the second such episode of swelling of the breasts, the first having occurred at about 13 months of age. At that time the swelling persisted about two or three weeks and then subsided uneventfully. On the present occasion the swelling had been noted about a week before she was brought in, and on the day prior to that she had begun to have vaginal bleeding.

There was nothing significant in the patient's past history. She had never had any sort of serious illness or anything which might be construed to be indicative of such. Both parents were living and in good health and the patient had four siblings, all living and well.

Relevant physical findings included nonpainful breasts enlarged to a size somewhat less than that of half a ping-pong ball; some very fine, not curly, not dark, pubic hair; a bloody vaginal discharge which had the appearance of a menstrual flow. I could not say that the clitoris was enlarged and no masses could be felt, either through the abdominal wall or rectally. She weighed 26 pounds 13½ ounces and was 34 inches tall.

Routine blood count and urinalysis were unremarkable. X-rays of the chest and skull were normal. Bone age was reported as 3 years and 9 months by the roentgenol-



ogist. The pathologist reported that a vaginal smear indicated evidence of estrogen activity. The 17-ketosteroids were reported as 2 mg. in a 24-hour urine specimen, and pituitary gonadotropin was reported as less than 6 mouse units. A frog test for pregnancy was negative.

Three days later the bleeding stopped. A month later she had another bleeding episode which lasted four days and then stopped. Her menstrual periods continued at intervals of approximately 28 days. Each time her breasts would become swollen a few days prior to onset of the flow and would subside after the flow ceased. The seventh month after I first saw her, she had some swelling of the breasts but no flow, but at the eighth month nothing at all happened. At each follow-up visit she has had physical examinations, been palpated abdominally and rectally for masses in particular, and there have been essentially no changes except for her growth. At two years of age she weighed 38 pounds and 8 ounces and was 39¾ inches tall. In other words she gained 12 pounds and 3 ounces in weight and 5¾ inches in height in 11 months' time. At two years of age the bone age was reported as 3½ to 4 years. I am continuing to follow her progress.

A fascinating aspect of the case con-

cerned parental attitudes. While the mother accepted, with gracious equanimity and wisdom, the fact that her baby had shown signs of maturing at such a tender age, the father was disturbed for days. Now both parents seem to have adopted an attitude free of any urging to interfere. The child herself breeds such parental peace of mind, for she is a charming, vivacious and seemingly healthy youngster.

Summary

Precocious puberty in the female has been discussed from the standpoint of its causes, management and consequences. The fact that its nature is usually constitutional has been emphasized, but investigations and continuing examinations should preclude the unwitting oversight of remedial pathology. Presented is the case of a patient who had the onset of puberty, heralded by a menstrual flow, at the unusually precocious age of about 16 months.

BIBLIOGRAPHY

1. Greenblatt, Robert B. et al: Gynecologic Aspects of Sexual Precocity, *Ped. Clin. of N. Am.*, Feb., 1958, p. 71.
2. Nelson, Waldo E.: *Textbook of Pediatrics*, Ed. 7, W. B. Saunders Co., Philadelphia, 1959, p. 1157.
3. Novak, Emil: The Constitutional Type of Female Precocious Puberty with a Report of Nine Cases, *Am. Jour. Ob. Gyn.*, 47:20, January, 1944.
4. Ariel, Irving M., Pack, George T.: *Cancer and Allied Diseases of Infancy and Childhood*, Little, Brown and Co., Boston, 1960, p. 131.
5. Nelson, Waldo E., *op. cit.*, p. 1201.
6. Ariel, Irving M., Pack, George T.: *op. cit.*, p. 275. ◄

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From *The Journal* Fifty Years Ago

. . . I have tried for twenty years to find the relation of the tonsils to rheumatism. I have observed many cases of rheumatism following tonsillitis and vice versa, and I am not sure but that a great proportion of the sore throats are rheumatic in origin, due to lack of elimination, faulty metabolism and lithemia, and in many cases the tonsillitis is the result instead of the cause.

The accumulation of uric acid in the system may result in muscular, articular, nerve sheath irritation, headaches, sore throats, etc. I think internal medicine is often overlooked in these cases. It is very necessary to establish elimination and clear the alimentary tract, stimulating the liver and kidneys to their normal functions.

In regard to the matter of removing tonsils, I believe that the pendulum has swung too far, in every instance of removing the entire tonsil whether it is diseased or not. Many of the ordinary cases require only the removal of the diseased structures. In this I wish to be distinctly understood that there are many tonsils that require complete removal in order to get the best results, but there are many others that do just as well if only the diseased portion is removed, and such part left as does not interfere with respiration and phonation, to produce phagocytes which it is claimed destroy the infection with which they come in contact. By this method many of the capital operations that are now being performed on cases that can ill afford it can be eliminated and greater danger from the radical operation removed.

L. C. Cline, M.D., discussing "Infectious Points in Diseases of the Nose, Throat and Ears" by George W. Spohn, M.D., *JISMA*, December, 1912.

Adolescence—Illness or Stage of Development*

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MANY PHYSICIANS, whether dealing with their patients or their own children, seem to find this a difficult question to answer. Not infrequently the words adolescent and delinquent are used interchangeably. In seeking an answer let us start by trying to define and describe adolescence, to give us a point of reference around which we can examine the case material we see every day in our offices.

Some questions needing discussion here are: What are the boundaries of adolescence? Does adolescence serve any purpose in the social, psychological and physical process of human maturation? What kind of interpersonal relationships do adolescents seek? These questions lead us to wonder whether an adolescent is a child or an adult. Can he even be both at the same time, or is it more likely that he alternates between being first one and then the other. Let us start by asking first what is a child, then what is an adult, and see where the adolescent fits in this scheme.

Childhood Dependency

I see a *child* as a young human in the process of learning the meaning of the world about him through his contacts with his adult humans. The child's learning experiences are always channeled by his adults who try to give him the advantage of their knowledge, protect him from dangerous experiences, as well as relive parts of their life through him. Since this channeling is both intentional and unconsciously motivated in the adults, it will be both explicit and implied. Because the young child is allowed to have only limited responsibilities, much of his interaction with the world is carried on through his adults. This means that his privileges of self-gratification, learning, and exploration are dependent on what his adults are able and willing to provide. In an ideal maturing situation he is encouraged to interact on his own more and more as his experience improves his ability to perceive, understand and respond to situations as they occur.

Maturation is a slow, and at times painful, process in which the child must not only accumulate additional information, but learn how it *relates* to everything he already knows. It can be conceptualized as a reverse pyramid in which the understanding of each new experience hinges upon the way in which previous experiences have been understood, organized, coded and stored. Not only have his adults channeled what a child perceives, but its meaning as well.

Because the human infant cannot survive without this level of dependency on his adults, there is no question of its being acceptable to him. But as he physically and socially develops into a more self-sufficient unit, his activities and explorations will increasingly conflict with the desires of his adults. What had been his life-sustaining dependency seems now to throttle what his adults are trying to teach him—how to survive when they are no longer around to protect him. As the infant survives only with adequate dependency, so the adult survives and perpetuates only with adequate autonomy.

Adulthood Brings Maturity

I see the *adult* as the end product of the maturational process to which he has been exposed as a child. He has been exposed to as much understanding of how to respond to the situations which he will face in the world as his particular adult teachers have

* Read at Indiana University's postgraduate course "Psychiatric Problems of Adolescence" for non-psychiatric practitioners, June 7, 1961.

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been capable of conveying to him. He uses the patterns he has learned over and over again with only minor variations. Although he can continue to learn from exposure to information or experiences, he finds it increasingly difficult to change his typical patterns of behavior.

He has become responsible for himself based on what he has learned from his contacts with more experienced individuals. He is now capable of entering into mutual agreements with other individuals or groups of adults and thereby participate in establishing, maintaining and changing the rules and value system of the society in which he lives.

The adult has both the privilege and responsibility of exerting his influence in one direction or another concerning this change in value system of his society. This privilege also means that he accepts the responsibility of protecting his value system and teaching it to those less experienced than himself. Within this value system each individual assigns meaning, significance and intent to everything he does, thinks, or feels, and makes his decisions accordingly.

This ability to judge, choose and act has been learned through experiences in doing, reading, thinking and communicating with other humans. Activities which brought about a desired result have been reinforced (i.e. encouraged). Those which brought about a failure or unwanted result were not reinforcing (i.e. given a negative value). Through these childhood experiences the adult has learned that he must be concerned as much, if not more, about the influence of his behavior on others, as its direct effect on himself. He has learned, almost ironically, that autonomy plus survival depends on his understanding how to control his self-centered impulses well enough to use them according to the outlets allowed within the value system of his culture. *The final step of independent existence is substituting realistic self-control for the outside controls of others.* Although an adult can, from time to time, regress to a state of being concerned primarily with himself as he was in infancy, this must be done within the prescribed limits of his culture's value system.

Adolescence a Metamorphosis

I have tried to define the two boundaries of adolescence. The earlier one, childhood, the older one, adulthood. *Adolescence* then is that phase of development which serves the purpose of allowing one to change from an immature individual dependent upon adults to protect and guide one's interaction with others, to becoming one of the adults with the privilege and responsibility of setting up the rules and teaching them to children. The adolescent, therefore, finds himself alternating between the role of being a child with adult ambitions and an adult with childhood fears and doubts. He finds the rules which were formerly for his protection and security now standing in the way of his further development as an independent adult. The mere presence of the "adult" rules remind him that he is still inadequate to take on fully the adult privileges and responsibilities of his ambitions. On the other hand, the withdrawal of these rules bring him painfully into contact with situations with which he is ill prepared to cope. He is threatened and angry if there are rules, but frightened and angry if there are no rules.

The physical changes accompanying puberty, as well as its anticipated or feared psychological consequences, make this a period in which the slow but steady pace of maturation, preceding adolescence, is no longer acceptable. The adolescent's unsatisfied and vaguely understood biological drives push him into an urgency for change, which his adults have forgotten in themselves and can rarely understand and accept in him. He inappropriately equates change of any kind with potential gratification for these sexual drives which he poorly understands. His urgency for change pushes him into seeking experiences which are almost certain to end in failure because of his lack of background experiences. His efforts to continue to use his parents for support offer serious complications.

Seeking or receiving sexual information from parents is very difficult in our society.

In their effort to prevent premature sexual exploration and experiences, parents have become associated with society's prohibitions and taboos, rather than becoming a source of sexual information. Seeking *any* help from a parent stirs up the dependency-independency conflict as the adolescent is, again, painfully reminded that he is not the adult he aspires to be but is still a dependent child—a fact he tries to evade.

The adolescent has two other possible choices for establishing more independent relationships. One is with his peer group and the other is with adults outside his immediate family group.

Safety in Numbers

He seems to sense that the safest relationship will be within his peer group. The major handicap in this group is that everyone in the group is also struggling with problems of a dependency-independency conflict. Nevertheless, there is usually an attempt on the part of the adolescent to shift his dependency, which as a child was appropriately directed towards his parents, towards his peer group. He can learn not only through his own experiences, but also from what he observes and hears about the experiences of his peers. As a member of the group he participates reciprocally in both supplying and receiving dependency. This learning to give and take from equals gives him the recognition, acceptance and self-esteem he cannot find with adults. Because the group's esteem is dependent upon the behavior of its individual members, they will offer support to keep the members in line with the value system of the group. Because the individual's esteem is judged by that of the group, he will try to enhance the status of the group in accordance with their accepted value system.

The most important function this group activity serves is to provide an experience in which persons with roughly equal status begin to formulate rules which govern the relationships between themselves. This is a definite move towards the role that the adolescent will have to assume when he becomes an adult. The danger lies in the fact that the strong drives and limited experience may lead the group to the brink of disaster. The group is painfully aware of its inability to effectively guide its own destiny. On the other hand, the intrusion of the adult, with adult rules in whose formation the adolescent did not participate, only makes the group more aware of its inadequacy. In an effort to deny its childishness and establish its adultness, the group may find itself with no alternative but to deliberately defy and fight against the very adult who is trying to protect them.

The problem which faces adults, be they teachers, ministers, parents, recreation leaders, law enforcement officers or family physicians, is how to channel the adolescent's drive to become independent toward the adult's right to participate in making the rules governing acceptable interaction between individuals. This is difficult unless the ground work is started very early.

The child has the best opportunity to develop an adequate set of patterns for adapting himself to adult life, when his adults allow him early opportunities to learn from his own experiences—be they successes or failures. As adults we must make decisions about channeling a child's experiences in order to protect him from potential physical and psychological dangers which may cause relatively irreversible changes. I see an irreversible change as one which *permanently* handicaps the individual either physically or psychologically. Death is irreversible but a skinned knee or even a broken arm is quite reversible.

Allow Child To Fail Occasionally

The disappointment of not having a particular new toy may be psychologically traumatic but it is reversible. Experimenting and becoming pregnant at fourteen years of age may be "corrected" by premature marriage or "giving away" the infant but either produces irreversible social and psychological consequences. Where the changes are probably reversible we should try to let the child discover his own solutions and conclusions even though we can predict that he may not be successful. I believe adults can most effectively help him learn by allowing him to use their experience to understand why he failed rather

than to always guide him away from potential dangers which probably have reversible consequences. (One might argue that all dangers are potentially irreversible but as adults we can, must and do make decisions based on probability. Although we are frequently right, being humans and not machines we are also occasionally seriously wrong. This is an unchangeable fact of life.)

When this pattern is started in early childhood it is easy to continue its use through the teenage period. When it has not been started in early childhood the potential risks in adolescence can be expected to be far greater. The adolescent will *still* be struggling with the attempts to prove himself autonomous which he should have established in his preschool period. A stubborn insistence on using a toy incorrectly can, at worse, bring disappointment to the preschooler, but the stubborn insistence on driving a car too fast is likely to bring death to the adolescent. He must learn to use the adult to help him understand his experiences rather than expect the adult to guide him around all potential discomforts and/or to stand in the way of his opportunities to learn for himself. He needs to see the adult as a member of a club which he, the adolescent, will soon be privileged to join, not an enemy who neither provides him dependency nor the opportunity to learn how to become independent.

By now you can see that I consider adolescence to be a stage of development—not an illness. I feel the highlight of the problems of adolescence are related to an attitude of our culture expressed in the cliché "these are the best days of your life —relax and enjoy them, *kid.*" Adolescence usefully serves as a brief, at times hectic, transition stage. When started early to shorten childhood or prolonged beyond the teens, as it frequently is in our culture, it becomes a way of life for which adults long and adolescents hate.

As physicians we see the spectrum of adult physical and psychological disorders masked by the problems of growth and development. Our job is to distinguish these in the adolescent patient. For psychological motives he may hide serious somatic symptoms or exaggerate insignificant somatic complaints.

Since the physician's training deals more intensively with the recognition of illness than the process of growth and development, I have intentionally focused my remarks toward the latter area, but this should not imply that physiological factors are less important than psychological in the adolescent. The good physician considers both in the management of his patients. ◄

Renal Hypoplasia

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RENAL AGENESIS, renal aplasia and renal hypoplasia have all been described and differentiated. Thirty cases of bilateral renal agenesis were described by Potter[1] from among 6,000 autopsies. The condition, more common in males, is associated with characteristic facies, namely an increased space between the eyes, flattening of the tip of the nose, a receding chin, and low-set, soft ears. Hypoplasia of the lungs was found in many of the autopsies. Clinically, these patients died at birth or soon after with no characteristic signs or symptoms.

Two types of renal aplasia are usually described.[2, 3, 4] They are the large, cystic kidney and the small, undifferentiated bit of scar tissue in the kidney area. Remnants of, or entire ureters and bladder may be present.[5]

The following case report is that of an infant with renal hypoplasia at birth, and signs of cerebral disease. The American literature has little to say about this association, but an article by Byrnes[6] describes renal agenesis combined with tortuosity of the pia arachnoid blood vessels and scarring of the cortex. Reference is made in this article to European literature on the subject. Lindau[7] discussed the relationship between cerebellar hemangioblastoma and renal cystic disease. Clinically, this patient had an amyotonia. In a review by R. H. Jebsen et al.[8] in the *Archives of Pediatrics* no mention is made of renal hypoplasia as a cause of amyotonia.

Case Report

The patient, a newborn boy, was delivered spontaneously under local anesthesia after a normal pregnancy and labor. Physical examination at birth revealed no abnormalities. Weight was 9 lbs., 2 ounces. The amniotic fluid was noted to be thick and yellow.

At 24 hours, the baby developed a temperature of 104°F., had a generalized convulsion and then became limp and cyanotic. Physical examination revealed a normal fontanelle and sutures, cyanosis, normal heart and lungs, palpable spleen and general hypotonicity. Fundi were normal. The next day, because of hypoactive reflexes and extreme flaccidity, a diagnosis of amyotonia congenita was made by the consulting neurosurgeon.

The pathologist's report showed a hemoglobin of 18.3 grams, white blood count was 27,240 with 6 stab forms, 61 polymorphonuclears and 32 lymphocytes. The spinal fluid had a cell count of 3, a protein of 90 and there was no growth on culture. The urine was negative for galactose and phenyl-pyruvic acid. Skull x-rays were normal. Chest x-rays revealed beginning pneumonitis on the right. Urines were recorded on nine consecutive days with two urines recorded on the third day. Treatment included antibiotics, oxygen, fluids, Prostigmine, calcium and Phenobarbital.

On the tenth day, the baby was transferred to the Bob's Roberts Hospital. There he was noted to be limp and cyanotic, did not suck, and had no Moro or Magnus de Kleijn reflex. The temperature was normal. The liver was palpable. There was a bilateral pneumonia. Hypotonicity was noted. He died on the eleventh day.

An autopsy performed at the University of Chicago revealed the following:

Summary of Autopsy

1. Bilateral, marked narrowing of the proximal ureters by fibrous bands.
2. Bilateral hydronephrosis.
3. Marked bilateral congenital hypoplasia of the kidneys.
4. Focal hyaline membrane disease of the lungs.

5. Focal pulmonary atelectasis and hyperemia.
6. Early bronchopneumonia.
7. Right ventricular dilatation.
8. Edema of the brain.
9. Patent ductus arteriosus and foramen ovale.
10. Acute congestion of the liver, lungs, spleen and pancreas.
11. Distended urinary bladder.

Urinary Tract: There is very little perirenal tissue. The renal capsules strip with considerable difficulty with rupturing of the external surfaces during the capsular removal. The appearance of the kidneys is that of a mulberry-like structure. Externally, multiple, elevated nodules are found throughout both kidneys while the tissue between the nodules is white and firm. The kidneys are severely atrophic. The right kidney weighs 3 grams and the left kidney weighs 2.6 grams. On cut sections, the finely nodular appearance prevails as well. Cortico-medullary junctions are indistinct. There are 6 medullary portions (papillae) counted in the left kidney. The right kidney has 7 medullary portions connected with calyces.

At both lower poles, there is a dense scar tissue between the nodules while in the upper and midportions of either kidney, the scar tissue is not as pronounced. Both pelves are moderately dilated and filed with cloudy, thick urine. At the junctions of both renal pelves and the ureters, a small fibrous band traverses the lumen of the ureters without complete obstruction. Both ureters are of normal dimensions below the membranes; they are not dilated and their course is regular. The ureteral orifice into the urinary bladder is patent. The urinary bladder is dilated, containing approximately 25 cc. of urine. The mucosa is white and smooth.

Kidneys: The left kidney demonstrates a nephrogenic zone, adjacent to the capsule which contains immature tubules and glomeruli. These glomeruli are characterized by hyperchromatic, large epithelial cells and few tufts. One can find up to two layers of immature glomeruli in this immediate subcapsular area. Within this zone immature tubules resembling those of fetal life are observed. Most of them are distorted by tremendous dilatation. Towards the medulla, the glomeruli have the characteristic appearance of post-natal life. However, the dilatation of tubules persists and some of the tubules are even cystically dilated. Concomitant with this dilatation, changes in the tubular epithelium are noted. Many of the epithelial cells are absent or incipiently necrotic. Other epithelial cells are acutely swollen and have a clear or finely granular cytoplasm. Still others are swollen and contain numerous discrete pink granules.

In one area of the left kidney, two pieces of cartilage remain between dilated tubules, and fetal glomeruli. The right kidney exhibits even more immaturity and hypoplasia. There is a broad zone of immature tubules and glomeruli arising from a tissue resembling the metanephric blastoma. This delicate connective tissue contains cartilage and many distorted dilated tubules. In the more mature portions of this kidney, tubules are markedly dilated and their epithelia show similar changes to those seen in the left kidney. The renal pelves are lined by normal transitional epithelium.

Neurology: The configuration of the gyri and sulci is normal. There is no evident blood staining either subarachnoid or intracerebral. There is no evident flattening of the cerebral gyri and vessels at the base and the cranial nerves follow the normal pattern. There are no signs of increased cranial pressure. The brain stem is transected through the caudal midbrain and serial coronal sections are made through the cerebral hemispheres. The whole surface of the cut slices is a rather homogenous pink with the exception of a white area around the periphery next to the cerebral cortex. In the posterior portions of the hemispheres, particularly the left hemisphere, the white matter does not have the pink color described previously but is here rather soft, white, somewhat coarsely granular.

Microscopic Description: The two areas

of softening of cerebral tissue with patchy fall-out of entire sections of cortical substance are most prominent in the occipital cortex and one gyrus of the frontal lobe. Throughout, there is an unusual proliferation of small blood vessels in a very active manner with prominent infiltration of macrophages. Acute inflammatory cells are absent.

There is a full complement of Purkinje cells. However, they appear sunken and the cytoplasm shows regressive changes. The granular layer is intact. The meninges are also normal.

Discussion

The case is presented because the clinical features included extreme hypotonicity. This is not described in the previously recorded cases of agenesis or hypoplasia of the kidneys. The autopsy findings in the brain, consisting of softening of cerebral tissue with proliferation of small blood vessels and infiltration of macrophages are described in the European literature as recorded in the article by Byrnes.[6] They are described in association with malformations of the kidneys. Therefore, it would be well to examine the brain for hyperplasia and tortuosities of the vessels in cases of agenesis or hypoplasia of the kidneys.

Summary

A case of hypoplasia of the kidneys associated with cerebral softening and proliferation of cerebral blood vessels is presented. Clinical findings of fever, convulsions and marked hypotonicity are described.

The association of vascular changes in the brain with anomalies of the kidneys is noted; it should be looked for to determine a possible common pathogenesis.

REFERENCES

1. Potter, E.: *Pathology of the Fetus and the Newborn*, The Yearbook Publishers, Inc., Chicago, 1952.
2. Mertz, H. O., Wishard, Wm. Niles, Sr.: Renal Aplasia, Two Case Reports, *Jour. Urol.*, 63: pp. 959-969, June, 1950.
3. Nation, E. F.: Renal Aplasia, *Jour. Urol.* 51: p. 594, 1944.
4. Burkland, C. E.: Clinical Considerations in Aplasia, Hypoplasia, and Atrophy of the Kidney, *Jour. Urol.* 71: pp. 1-12, 1954.
5. Baggenstoss, A. H.: Congenital Anomalies of the Kidney, *Med. Clinics of North America*, 35: pp. 987-1004, 1951.
6. Byrnes, Roy L., Boellaard, J. W.: Renal Agenesis and Meningocerebral Angiomatosis, *A.M.A. Archives of Path.* 66: p. 23, 1958.
7. Lindau, A.: Vascular Tumors of the Brain and Spinal Cord, *Proc. Roy. Soc. Med.* 24: pp. 363-370, 1930-1931.
8. Jebsen, Robert H., Johnson, Ernest W., Knobloch, Hilda and Grant, Kerr, Donald: Differential Diagnosis of Infantile Hypotonia, *Amer. J. of Dis. of Child.* 101: pp. 8-17, 1961. ◄

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The Case of the Headline Haunting Hallucination

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"DIDN'T YOU TAKE CARE of these people once upon a time?" Over the breakfast table my wife was pointing at an item that had caught her attention. The infallible *N. Y. Times* gave considerable space to the distinguished Midwest philanthropist who had just donated money for a new laboratory to be erected at a famous medical school.

Indeed, my spouse had heard the name from me—decades back when I was still practicing near Chicago. Logically, my mind went to this man's present wife. And then, it was inevitable for me to recall Freddie Ferdt.

Never had I known a man more enamored of himself. Fred Ferdt admired himself! Not his brains, certainly, but his home, his social status and—above all—his own sheer stunning physique: the classic chiseled features, the rippling muscles, the flawless coordination of a gymnast performing acrobatic acts with feline facility.

Of course, psychiatrists call this overt Narcissism. They say that it bespeaks a bruised, insecure childhood, crushed adolescence and various behavioral aberrations. It was completely true that Fred had a most domineering mother obsessed with the idea of fitting her son into a mold of *her* making. It was fact that Fred was no intellectual giant; he just plodded his way through school. But physically—in athletics, on the dance floor, in the boudoir—Freddy shone. There was something almost peacock-like about the way Fred could stand before a mirror preening the part in his hair—just so; adjusting the knot of the cravat—just so; clipping his mustache—just so. There were many mirrors in the Ferdt household and Freddie made a tour of them often, just to convince himself yet again of his admirable appearance!

My acquaintance with Fred began on the tutorial, hired hand level. Cook County Hospital interns in Chicago received room, board, laundry and NO cash. In school I had eked out a meager allowance from home by aiding dull scholars in their studies. This avocation had started away back in college; I had been drafted to have an anchor man on the football team reinstated, scholastically, in time for the crucial game with Illinois. It was almost the last of Stagg's great teams; this 300-pound behemoth was in my psychology class, proverbially a "snap" course. This lineman's cerebral association areas functioned on so low a level that even the most understanding of instructors had been forced to rate him a flunking D. The dimwit had to have a special exam, and I was tapped for the chore of drilling him into learning, by rote,

a few answers. The job was exhausting and the fee minuscule; it all was in vain, anyway, as Red Grange and his cohorts slaughtered us in a game still remembered by some. However, I had acquired a reputation that kept me, very modestly, in pocket money.

Here Is My Son . . . Here Are His Books

One day, at the hospital, I received a letter from grande dame, mère Ferdt. Would I come to their town residence (at the Lake Shore Drive, number plainly stated) at the specified time to discuss becoming a tutor for her son? If so, I was to consider the enclosed check as a retainer. Somewhat flabbergasted at its size—even if it was the roaring twenties—I made it my business to 1. cash the check; 2. make a punctual appearance as specified.

The majestic butler marched me into the side study. As I was announced, the amply bosomed woman sitting at her escritoire turned and scrutinized me prolongedly through a jeweled lorgnette; I was not offered a seat; a rather foppishly attired young man was reclining on a divan smoking a cigarette, using the kind of holder later made famous by F.D.R.

My appearance must have been disappointing as the great lady finally harrumphed and said crisply, "You don't *seem* to be as intelligent as the reports I've had of you but—oh, well. We'll try you out." The inflection of her voice was precisely the same as she must have used when hiring any other employee.

"This is my son, Frederick. Here are his books; take an hour and see what you can do with him." With this, she heaved herself up and sailed out; her precious progeny and I were left alone. It was a difficult session; the whelp knew little, cared less and had no absorptive capacity; still—I tried.

Let us not expatiate at too great a length on the sordid details. In spite of the inauspicious beginning, this became the first of many such sessions. The fee being received made it impossible for me to flaunt my pride; I refused to be insulted. Freddie got past the college finals; he was accepted at a great medical school. I will NOT rehash old gossip. However, the idiot *did* tell me that his maman and his tanté gave a VERY large donation for the erection of a stately edifice at that particular medical institution. Pure coincidence, of course.

It was a struggle getting Freddie through his course. Still, with the aid of two other tutors, understanding fraternity brothers and a sotto voce directive from a couple of trustees—it was done. No nepotism; nothing as blatantly vulgar as outright bribery; nothing crude; everything supremely discreet. Seeing the vapid wastrel for all those years, being the observer of many seances and also being the repository of many unsolicited confidences; all this gave me an unparalleled view of the seamy side of the Ferdt facade.

The Ferdts never invited me to any of their social functions, not even to the ball given when Freddie got his medical diploma. I did *not* expect an engraved bid to their palace; I *did* think that I could have been tossed a ticket to the main floor of the opera. The Ferdts and Insulls had bought ALL the seats for a performance of "Aida"—given specially at Ravinia.*

Oh, well. The generous monthly check could have purchased many tickets and all my degrees did not alter my lowly, second-class, servant status.

Paramours and Paresis!

Anyway, Freddie went on to bigger and better things. He went into plastic surgery. His skill in athletics and things manual carried over into rhinoplasties and Z-uplifts. He married into an absolutely "best" family. The union was blessed with two adorable youngsters. That marvelous society surgeon! That tres chic, adorable fashion plate! One straightened nose would pay, gratefully, a fee that a really good surgeon would toil months to earn honestly —or, should I say deservedly!

All this did not change Freddie's amorous proclivities; mariage de convenance or not. I knew, as he came to me for treatment

* All resemblance to persons living or dead is strictly coincidental. . . .

of the venereal diseases he gleaned from his paramours. It was I who irrigated his posterior urethra with Argyrol, sounded him to dilate strictures and gave him the bismuth and arsenical injections for the luetic secondaries (confirmed with positive blood serology). Freddie felt perfectly free to come to me. After all, we lived in different worlds and he was certain of my discretion.

The years went by; World War II came, and receded into history; I was no longer in the Midwest. And then—one fine afternoon—I was surprised to see him stroll into my office. It had been a long decade plus, since I had last seen him. That debonair strut; that jaunty twirling mustache; that dangling cane; that air of amorous insouciance—all still there! After the first hello and a remark anent dropping in while in town, he got right down to the point. He was getting many headaches; he was fatigued after only an hour in the operating room. . . . As he rambled on, I could take a second look at my macaroni. Admittedly a dozen odd years had gone by but what was there about Fred that jarred? Was he not a bit *untidy* about himself? And he, the dandy! And that constant rambling monotone? Was he not *slurring* the syllables and *blurring* the grammar? And was he not ranting too boastfully about his practice? About that expected new school appointment? Not one off-color anecdote in the 20-minute monologue?

Quietly I said, "Fred, strip and let me look you over." Meekly, he complied, mumbling about his exploits. The findings were few but surely disquieting. The pupils were certainly irregular and not quite equal; they accommodated to near vision but did not react to light. The optic discs were definitely paler than they had any business being. There was an astonishing clumsiness and coarseness of movements: not overt incoordination but a far remove from the graceful athlete and fairly dextrous surgeon I had known.

The deep muscle reflexes were rather too brisk and yet the Romberg sign was *almost* positive: he swayed badly. Was I jumping to conclusions, being prejudiced by the known fact of inadequate anti-luetic therapy in the past—or was I looking at central nervous system syphilis: tabo-paresis to be exact? Was Freddie really as casual about his visit as he claimed to be—or had he retained just enough cerebration to come to the physician who had treated him in the past?

Society Must Be Protected

There was meek submission to the spinal tap. The pressure was up and Pandy's test gave the telltale bluish white ring; the cell count was 50 plus. Of course, the VDRL and the colloidal gold were not immediately available. Quite significant, clinically speaking, was the prompt relief of Freddie's headache that followed withdrawal of a generous 20 cc. of spinal fluid. The suggestively vacuous face tightened into a grateful smile, "I feel *so* much better."

As Freddie lay supine for the mandatory hour following the puncture, he was given a mammoth injection of procaine penicillin. While circulating in the other examining rooms seeing my regular patients, I ruminated as to my duty vis-a-vis the prodigal plastic surgeon. Certainly he was in dire need of therapy BEFORE disaster struck. Thank God! Penicillin taken daily for a month is specific. The usually omniscient U. S. Public Health pamphlet on syphilis says that 10 days is enough but I am a faithful follower of the late Dr. O'Leary who took the position that in C.N.S. lues, the longer course is indicated.

Until treated and sent into a remission, Freddie himself, his family, his friends and his patients had to be protected from the sudden, disastrous personality aberrations that are *always* to be feared in a paretic. In this disease, it is my strongly held belief that the usual patient-doctor relationship does *not* hold. Society must be safeguarded and the patient salvaged even against his wishes. There should be no hesitation in declaring mental incompetence if the need arises. Of course, it need not be proper to make the information public property; there are other ways.

To me, it seemed both discreet and safe to call, long distance, the chief of the hospital with which Fred was affiliated. I apprised him of the bald facts and asked him to meet the plane on which I was putting Freddie. After his acceptance of my request, I felt that my responsibility was terminated.

"Mirror, Mirror on the Wall"

Having personally escorted Freddie to the proper flight, I proceeded to dismiss him from my mind. My smug self-satisfaction was smashed to smithereens in less than 48 hours. There was a lull in headline material; Freddie remedied that for the yellow press—and how! "Brutal Gendarme Garrotes Socialite Surgeon" was the more conservative caption; banner head streamers carried the story around the world. Even the staid *N. Y. Times* gave it three-column coverage berating excessive police zeal. The first fragmentary reports of Freddie's astonishing actions and violent end were disjointed and conflicting. I gathered the pieces later both through the press and the official transcript of the coroner's hearings. My statement was included in the record.

The surgeon who had made the telephone promise to meet Freddie had been detained by one of those sudden emergencies; he had sent in his stead the newest young assistant. This chap was persuaded by Freddie to have the two of them proceed first to the maternal Ferdt mansion. Freddie had introduced the young doctor to his mother; then he asked the chap to wait while he went upstairs with his parent: "I'll be gone only a couple of minutes. . . ."

Thus far the sequence of events is indisputable; the assistant insisted absolutely that Freddie had acted so normally that he did not even think of looking askance at any of Fred's actions. Freddie and his mother stayed upstairs longer than anticipated. Soon the assistant heard the loud tones of an angry disputation. At first, Mother Ferdt seemed to be upbraiding her son; then she was pleading; the sudden finale was a crescendo shriek almost surpassed by a splintering crash. Belatedly, the young resident raced up the staircase just in time to witness an astounding mise en scène. There were large mirrors decorating the walls of Madame Ferdt's sitting room. Freddie was in the very act of flinging his mother into a corner of the suite where she lay stunned by the force of the impact. Freddie was holding a large crowbar in his hands; one mirror had already been shattered. He strolled deliberately to the next one and peered into it earnestly. Almost petulantly, he exclaimed, "Where is the REAL Fred Ferdt?"

Then he twirled his mustache and swung the crowbar with macabre calmness —but unerring effectiveness. The glass that had failed to reflect the dapper surgeon that he *had* been (but was no longer) splintered. In systematic fashion Freddie went from mirror to mirror repeating the procedure with an insane automatism. The young doctor quailed at the sight of this athlete wielding so formidable a weapon. Instead of attempting to restrain his charge, he retreated downstairs and sought the kitchen phone to call for help: muscular policemen rather than terrified maid servants appeared to be an essential need.

A Dandy Bent on Destruction

In the meantime, Freddie, having destroyed the upstairs mirrors, SLID down



His mother lay stunned!

the balustrade and started on a deliberate, destructive tour of the first-floor premises. The disjointed depositions made later by the hired help are not really contributory to our tale. It was never established as to just *where* the crowbar had been obtained; neither was Mother Ferdt much help, as she developed a retrograde amnesia: she had no recall of her conversation with Fred.

In all probability, not ten minutes after the beginning of Freddie's rampage, he emerged from the front door of the parental palace and started sauntering down the fashionable promenade; the crowbar was still being nestled fondly as if it were a cane. Freddie turned the corner into the avenue lined by numerous shops. The whole trance-like ritual was repeated: he would peer intently into a window, reject the image seen, proclaim his annoyance—and smash the offending glass with the iron he was dandling.

There had been a flight of passers-by and a crescendo chorus of shrieks on the part of the rudely disturbed store occupants. The corner policemen began to converge on Freddie. Before they could reach their quarry, a squad car roared up, answering the young assistant's frantic plea for help. Two uniformed men, guns drawn, leaped out; Freddie was commanded to drop the crowbar he had been fondling. Freddie thumbed his nose at the minions of the law and started to act out the all too familiar routine at the next window. Such antisocial behavior could not be condoned. Now it is true (as was brought out later at the inquest) that neither officer ever fired his gun. What they did do was to approach Fred closely; one distracted the culprit's attention while the other leaped on him from behind, wrapping a burly arm around the offender's neck: it is the well-known, usually effective, maneuver of subjugation. The minutiae of the exact maneuvers possible make up a goodly portion of the science of judo.

A Deadly Judo Maneuver

The veriest tyro knows that pressure on the larynx will produce most quieting effects in the most obstreperous of individuals. A "hangman's noose" depends, for its dire effect, upon the sudden dislocation of the second cervical vertebra being twisted around the first. As the rope suddenly arrests the falling body, the odontoid process of this second cervical vertebra bites into the medulla oblongata: death is mercifully almost instantaneous.

When an Apache (Parisian variety) applies the garroting rope to the neck of his victim, he has an absolute control of the vigor with which he exerts the constricting pressure on the airway; with unconsciousness, the lethal string can be loosed before exitus supervenes. Law enforcement agencies such as the FBI, OSS and all the others, of necessity teach their agents the deadlier versions of judo and other forms of mayhem. Without being too crassly explicit, we all know quite well that the Adam's apple is a vulnerable structure. Most doctors remember that the thyroid cartilages guard the front of the vocal cords and that a tough but elastic cricothyroid ligament connects them with the cricoid cartilage. The hollow inside of this latter structure forms the cavity of the larynx which, in turn, is the only entrance (and exit) to and from the tracheal tree. Forgetting details, we need only to remember that all these structures are COMPRESSIBLE.

The judo expert, as well as the cruder Apache garroter, simply maneuver to narrow the respiratory passages of their victims. The thyroid cartilages can be compressed and forced to over-ride the cricoids thus narrowing the aditus laryngei. This reduction in airflow can be so drastic as to force unconsciousness. In extreme instances the thyroid cartilages can actually be literally rammed into the trachea thus wedging shut the entire airway with devastating finality. If not relieved within a maximum of four minutes, death by suffocation is inevitable.

The officer attempting to subdue Fred was a very well trained man, indeed. He simply did not dream of anticipating the enormous muscular strength and agility still residing in Freddie's frame. Also, we must not forget that insanity does release

many inhibitions—and Freddie was just such an insane man, and general paresis is notorious for behavioral aberrations. In spite of his terrible disadvantage, Freddie was proving more than a match for his would-be subduer. He had swung his crowbar around the officer's leg (beginning to break it); he had *almost* slung the officer off when the latter panicked. Instinctively, at the last possible moment, he applied the judo maneuver he had been taught so many times (on dummies) for precisely such emergencies.

With a choked gurgle, Fred Ferdt collapsed; within minutes he was dead! No one had time to think of a tracheotomy and none on the scene knew how to undo the killer maneuver. Never mind the 18,000 bronchioles and the 300,000 alveoli. The lethal twist had plugged shut the only entrance to the lungs; no air could leave or enter. There was no mystery whatever in HOW Dr. Frederick Ferdt had been slain by a minion of the law.

Each Lurid Detail Reported

Of course, mirror smashing is social behavior not to be condoned. Still, the punishment was appallingly drastic and entirely extra-legal. To compound it all, the victim was not an obscure offender. In broad daylight, on a main thoroughfare, in the sight of hundreds if not thousands of people—a police officer sworn to uphold the law had engaged in a brutal scuffle and had wantonly slain Dr. Frederick Ferdt: distinguished scion of an internationally famous family, socially prominent surgeon, husband of a reigning beauty, father of such lovely children, etc., etc., etc.!

No wonder that both police officers were themselves arrested. No wonder that Fred's weird hallucination was to haunt the headlines of the world's press for days to come. What more could the yellow press —any press—want? Here were juicy items to titillate the shop girl, alarm the Ivy Leaguer and arouse the inveterate Civic Rights Do Gooder. For almost a week banner headlines leered from the newsstands; every edition gave more gory grist to the mill. The tale of both the victim's



. . . and smashed the offending glass.

mother and wife being secluded under their respective doctors' care—the poor young boys crying for their missing daddy—all this was elaborated ad nauseam.

Not until much later did anyone even hint at what COULD HAVE happened had Freddie had something more deadly than the iron bar at the moment when his cerebration slipped gears. I'm still bothered by the fact that the crowbar seemed to have materialized mysteriously; but no one claimed its ownership. Does any reader remember the chap in New Jersey who sprayed a street with a machine gun when his moment of aberration overtook him? Or the similar paretic who killed his wife, seven children and his own parents in a parallel episode?

For readers of the daily sheets here was the case of a prankster—almost a Peter Pan-like character—who broke some glass, was manhandled most brutally by the police and then actually slain in the most callous manner possible when he resisted restraint.

It was only later that the head of the medical society (the very surgeon whom I had called long distance) was permitted to testify. Of necessity, the meat of his testimony was given in chambers; the public statements made by him were innocuous enough without revealing publicly the na-

ture of Fred's illness. By the time they got around to my deposition, other—far more world-shaking events—had taken over the headlines. Anyway, my testimony also was impounded and for the same reasons as was the surgeon's. In time, the public forgot the case completely. The Ferdt family never discussed the case; Fred's widow remarried and both her children were legally adopted by their stepfather. Time marched on.

Food for Thought

Frankly, even in hindsight, whenever I have reflected on my part in Fred's fate, I have always thought that I should not have done anything differently. How could one have foreseen the gruesome denouement of this succession of events? Quite honestly, I believe the policeman's story (fully corroborated by his partner) ; I do not believe that he deserved the drastic punishment meted out to him. Fred just HAD to be subdued. Of course, the theologian could say that his violent end was justly merited even if he might have been cured had time been doled out to him. All I know is that general paresis is a nasty mimic of many syndromes and that it is still far more prevalent than it should be in this penicillin era.

Here my wife's endless patience reached an end. "For Heaven's sake! Why this diatribe on Fred Ferdt? This paragraph I showed you deals with a different man! What is the connection?"

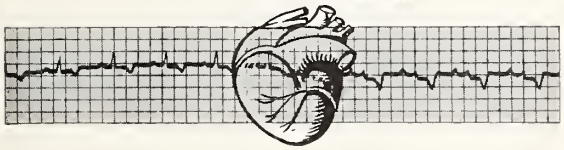
"Oh, yes! I forgot to tell you that *this* man in *this* paragraph is the man Freddie's widow married! HE is the stepfather and has given his name legally to both of Freddie's children. I happen to have heard that one of the boys has just entered his late father's alma mater. I just wonder if he is as stupid as his father had been? Is this an 'obligatory' gift on the stepfather's part? No. I'm not being snide—just thinking out loud. . . ." ◄

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LEGISLATION AGAINST SIDE EFFECTS?

The unexpected appearance of side effects in drug therapy has been and will be due not to inadequacy of laws but to the inadequacy of scientific knowledge. Protection against side effects cannot be legislated. There will always be instances where a drug will be prescribed, despite its side effects, because the alternative is worse. Every drug is to some extent toxic. Even the purest tap water can be harmful under certain conditions. A doctor must always weigh the disadvantages of a drug against the expected advantages. The best and most extensive legislation in the world will not help him in this decision. But restrictive legislation can tie his hands. The problem, I repeat, is not lack of legislation but lack of exact scientific knowledge. —Austin Smith, M.D., President, Pharmaceutical Manufacturers Association, to 16th Annual Convention, National Pharmaceutical Association, August 7, 1962.

Electrocardiogram of the month



Presented as a regular feature of The JOURNAL, Electrocardiogram of the Month is a series of short talks on cardiovascular diagnosis and treatment, edited by the staff of the Robert M. Moore Heart Clinic of the Marion County General Hospital, Indianapolis.

Ventricular Parasystole

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THE VAST MAJORITY of ventricular premature beats fall into three categories. These include (1) coupled, (2) multifocal and (3) parasystolic ectopic beats. The latter should be suspected whenever (1) the ectopic beats have no relation to the preceding normal beats—in other words fall in during different phases of the cycle, (2) the ectopic beats are separated by a fixed time interval or a multiple of such an interval, and (3) fusion beats are present. Finding of such an arrhythmia indicates the existence of an independent focus in the ventricle, discharging at a regular, fixed interval and in some way protected from the dominant higher rhythm. Parasystole is a relatively rare finding and always indicates myocardial disease. For this reason it should be differentiated from the ordinary ventricular premature beats.

Tracing reproduced in Figure 1 is an example of ventricular parasystole. The dominant rhythm is sinus in origin with atrial bigeminy clearly demonstrated by the relationship of fourth and fifth and again sixth and seventh P waves. There are six types of QRS complexes numbered from 1 to 6. QRS 2 to 6 are separated by an interval of 0.96 seconds or a multiple thereof. The parasystolic discharge interval is established therefore as 0.96 seconds.

The parasystolic QRS (QRS 2-6) show no fixed relationship to the preceding "normal" QRS (QRS-1), a phenomenon characteristic of ordinary, coupled, ventricular premature beats. The variation in the contour of the parasystolic complexes is due to the activation of the ventricles simultaneously by the supraventricular impulse (S-A) and parasystolic focus. Depending on how much of the ventricle is activated (captured) by each, the resulting complex (fusion) will resemble either QRS-1 or QRS-5. An example of the former is QRS-2 and the latter QRS-6. ◄

* From the Robert M. Moore Heart Clinic, Marion County General Hospital and the Department of Medicine, Indiana University School of Medicine.

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FIGURE 1

THE DOMINANT RHYTHM is S-A in origin with atrial bigeminy complicated by ventricular parasystole. For details see text.

LABORATORY MEDICINE

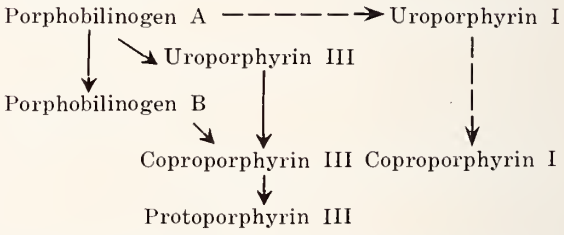
Published periodically as a review of clinical laboratory procedures suitable for laboratories with minimal equipment.

Porphyrins

A. WENDELL MUSSER, M.D.*

THE ABILITY to synthesize porphyrins is possessed by most living things. Both hemoglobin and chlorophyll are metal complexes of porphyrin. Porphyrins are derivatives of a basic substance, porphin, which consists of four pyrrole rings linked by methene groups. Some porphyrins are naturally occurring; others occur as by-products of metabolic processes. Those found in nature are compounds in which side chains have been substituted for carbon atoms on the pyrrole ring.

The porphyrins are composed of a large group of substances associated with many isomers. Those of most medical importance are coproporphyrins and uroporphyrins. Four isomers are possible in each case, but only Type I and Type III occur in nature. Much is unknown concerning the mechanism of formation of porphyrins. Apparently glycine interacts with succinic acid of the Kreb's cycle to form aminolevulinic acid. This compound in turn is transformed to porphobilinogen, a monopyrrole. This monopyrrole has an acetyl, propionyl and aminomethyl side group and can be changed to a different monopyrrole in which the acetyl group has been replaced by a methyl group. Three different pathways are available:



The combination of iron with protoporphyrin (ferroprotoporphyrin) is heme.

The normal red cell contains free protoporphyrin and traces of coproporphyrin. Coproporphyrin and to a lesser degree protoporphyrin are normal constituents of the stool. Coproporphyrin I and coproporphyrin III are both normally found in urine, I in excess of III.

Increased erythropoietic activity, infectious hepatitis and obstructive jaundice result in an increased excretion of coproporphyrin I. Slight increase of coproporphyrin III occurs in infectious, malignant diseases, cirrhosis and following the ingestion of many chemicals, especially lead poisoning. Coproporphyrin can be measured quantitatively.

Of much interest and curiosity are the true porphyrias which have in common the presence of uroporphyrins in the urine and

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stool. Watson and others have classified the porphyrias in the following manner:

I. Porphyria Erythropoietica (congenital or photosensitive porphyria)

a. Overproduction of Uroporphyrin I and Coproporphyrin I in blood-forming organs.
b. Onset early in life.
c. Photosensitive skin lesions, splenomegaly, hemolytic anemia and discolored teeth.
d. Uroporphyrins excreted in urine.

II. Porphyria Hepatica

a. Acute intermittent porphyria

1. Precursors of porphyrins produced in excess in liver.
2. Onset later in life.
3. Abdominal pain and neuropsychiatric disturbances.
4. Porphobilinogen excreted in urine.

b. Porphyria cutanea tarda

1. Defect in liver resulting in overproduction of uroporphyrins.
2. Similar to porphyria erythropoietica but onset later in life.
3. Signs and symptoms similar to porphyria erythropoietica.
4. Uroporphyrins in urine and absent porphobilinogen.

c. Acquired Porphyria Cutanea Tarda

1. Defect in liver resulting in overproduction of uroporphyrins and coproporphyrins, seen in alcoholic cirrhosis.
2. Onset late in life.
3. Signs and symptoms similar to porphyria erythropoietica.
4. Increased urinary excretion of uroporphyrins and coproporphyrins with uroporphyrins exceeding the coproporphyrins.

d. Congenital protocoproporphyria

1. Defect in liver resulting in overproduction of protoporphyrin and coproporphyrin.
2. Onset in adolescence.
3. Abdominal pain and neurological manifestations.
4. Large amounts of coproporphyrins and small amounts of uroporphyrins in urine. Large quantities of coproporphyrins and protoporphyrins in stool. Maybe porphobilinogen in urine.

The quantitative methodology for uroporphyrin is not satisfactory at this time; however, large amounts of uroporphyrins can be detected. A simple screening procedure can be employed using Ehrlich's Aldehyde reagent.

Watson-Schwartz Test

Reagents:

1. Modified Ehrlich's reagent: 3.5 gm. of p-dimethyl aminobenzaldehyde dissolved in 750 ml. of concentrated HCl and 500 ml. of distilled water.

2. Saturated sodium acetate: add approximately 1 kg. of sodium acetate to 1 liter of water at 60° C.

3. Chloroform.

Method:

To 2.5 ml. of fresh urine in a test tube, add 2.5 ml. of Ehrlich's reagent; shake, and after exactly 15 seconds add 5 ml. of saturated sodium acetate. Then add 5 ml. of chloroform, shake and centrifuge. A positive reaction is a strong red (or red-purple) color, limited to the upper, aqueous phase. Many substances, such as tranquilizers, and many indole compounds, will give false positive reactions. Repeating test using HCl instead of Ehrlich's reagent will aid in verifying false positives. Interfering compounds but not porphobilinogen will produce a red color with this substitution. The diagnosis of porphyria associated with excretion of porphobilinogen cannot be established unless the presence of uroporphyrins is confirmed.

Since many abnormalities of porphyrin metabolism result in the excretion of porphobilinogen, the Watson-Schwartz Test can be used as a screening procedure. However, as stated above, more definitive measures must be undertaken to obtain detailed information concerning the porphyrins.

REFERENCES

1. Heikel, T.: A determination of porphobilinogen, coproporphyrin, and uroporphyrin in urine and tissue. A preliminary report. *Scand. J. Clin. Lab. Invest.* 10:193-195, 1958.

2. Martin, W. J., Franks, J. H.: The porphyrins and porphyria. *Am. J. Med.* 20:239-250, 1956.

3. Rimington, C. S. Krol, Tooth, B.: Detection and determination of porphobilinogen in urine. *Scand. J. Clin. Lab. Invest.* 8:251-262, 1956.

4. Schlenker, Frank S., Davis, Cora L., Kitchell, Cynthia L.: Total content of porphyrin in urine. *Am. J. Clin. Path.* 32:103-106, 1959.

5. Shemin, David, Wittenberg, Jonathan: The mechanism of porphyrin formation. The role of the tricarboxylic acids. *J. Biol. Chem.* 192:315-334, 1951.

6. Watson, C. J., Schwartz, S.: A simple test for urinary porphobilinogen. *Proc. Soc. Exp. Biol. & Med.* 47:393-394, 1941.

7. Wolstenholme, G. E. W., Millar, E. C. P., eds.: *Porphyrin Biosynthesis and Metabolism,* Ciba Foundation Symposium, Little, Brown, Boston, 1955. ◄

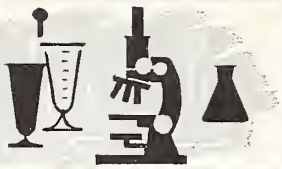
Aliens to Get Hospital Bills

Lacking money and staff, other hospitals are likely to follow the lead of the Royal Free, London, in charging foreigners who come to Britain for free treatment. The hospital's stand is in line with government policy. Ever since the National Health Service was introduced, the Ministry of Health has tried to foil foreigners who visit Britain simply to "get something for nothing." If an immigration officer suspects that an alien has come to get free treatment, he will refuse to give him a permit to land.

The average weekly cost of maintaining a patient in the Royal Free Hospital in the year ended March 31 last was $103. This did not include the cost of treatment. A spokesman of the Royal Free Hospital said: "A very big proportion of our patients are foreigners. We wrote to 2,000 general practitioners who refer cases here, warning them foreigners would be charged. We were suprised to find that many did not realize this was the position. They took umbrage at our warning. Our consultants charge fees to foreigners not entitled to free treatment."

Foreigners genuinely resident here, working, and paying taxes were as entitled to use the health service as other residents. All foreigners needing emergency treatment were treated free. Cost of treatment to foreigners who should have paid has been put at $420,000 to $560,000 a year. This has to be set against an annual cost of the health service now exceeding $1,960 million. Britain has comprehensive reciprocal health service arrangements with a number of foreign countries.—Reprinted from the *JAMA,* Vol. 181, No. 13, 1962.

Path-finder
PUBLISHED UNDER THE AUSPICES OF THE INDIANA ASSOCIATION OF PATHOLOGISTS



Cytochemical Alkaline Phosphatase Test of Mature Neutrophils in the Differential Diagnosis of Myeloproliferative Disorders

LEON L. BLUM, M.D.
Terre Haute

THE ALKALINE phosphatase content of mature neutrophils is markedly elevated in cases of polycythemia vera, leukemoid reactions and "myeloid metaplasia" while it is very low or absent in chronic granulocytic leukemia. This test is also helpful in the differentiation of various forms of "polycythemias." The results are reported as the so-called "alkaline phosphatase score," a value obtained from the study of 100 mature neutrophils in a blood smear. The cytoplasmatic granules of neutrophils may remain unstained (no alkaline phosphatase activity) or exhibit brown to black discoloration graded on the basis of 1+ to 4+.

Normal range: 15 to 55 with an average of 30.

The technic used by us is that of Kaplow.[1] The blood smears are fixed in 10% formalin in absolute methanol at 0°C, incubated for 10 minutes in a freshly prepared substrate mixture containing sodium alpha naphthyl acid phosphate, fast blue R. R. and propanediol buffer and counterstained with hematoxylin. The liberated naphthol is coupled with a diazotized amine (fast blue R. R.) to form an insoluble and colored compound.

Recently, the use of Brentamine fast garnet instead of fast blue R. R. has been advocated for a faster coupling action[2] and a methyl green counterstain for a better nuclear-cytoplasmatic contrast.[3] With some experience it is possible to differentiate between a normal and abnormal smear by simple inspection without actually performing the "scoring" count.

The findings in various myeloproliferative disorders are summarized in the following table.

Myeloproliferative Disorder	Alkaline Phosphatase Activity ("score")
1. Chronic granulocytic leukemia	absent or markedly decreased
2. Leukemoid reaction	++ to ++++
3. Myelofibrosis with myeloid metaplasia	low normal to ++
4. Polycythemia vera	+ to ++++
5. Anoxemic erythrocytosis	normal
6. "Stress" erythrocytosis	normal

Our experience fully confirms the findings reported by various authors and indicates that the alkaline phosphatase score represents a valuable aid in the differential diagnosis of myeloproliferative disorders. It also appears to be useful in evaluating the effect of therapy. There are no post therapeutic changes in polycythemia vera,

but variable changes are observed in chronic granulocytic leukemia. The rise of the alkaline phosphatase score to normal values probably indicates a repopulation of the bone marrow with non-leukemic granulocytes and improves the prognosis in regard to the length of induced remission.

The relative simplicity of the test, if technical details are strictly adhered to, renders the test suitable for routine use in clinical laboratories.

REFERENCES

1. Kaplow, L. S.: *Blood* 10:1023, 1955.
2. Hayhoe, F. G. J., Quaglino, D.: *Brit. J. Haemat.*, 4:375-389, 1958.
3. Climie, A. R. W., Heinrichs, W. L., Foster, K. J.: *Am. J. Clin. Path. Techn. Bull.* 38:95-103, 1962. ◄

New Phone Aid for the Deaf

A new device which will enable deaf and partially deaf people to hear their telephone ringing has been invented by engineers of the Australian Post Office at their Melbourne research laboratories. A strong, penetrating note from a miniature loudspeaker, similar to the "howl" of an old-fashioned radio set, replaces the usual bell. The sound is pitched in the most favorable hearing range for persons who have lost some of their responses to high tones, the common cause of hearing failures.

The new calling device, believed to be the first of its kind, stands less than 2 in. high in a small metal box and is approximately as broad and as long as a telephone handset base. It is energized by the incoming signal from the exchange. The ringing tone is described technically as "a complex sound centered at a frequency of about 500 cycles."

Research which led to the development of the new device was undertaken at the suggestion of doctors of the Jean Littlejohn Deafness Investigation and Research Unit at the Victorian Eye and Ear Hospital in Melbourne. Plans are being made for the commercial production of the device as an additional post office service. Deaf-aid telephones whose volume can be increased by the listener have been available on Australian telephone systems for a number of years.—Reprinted from the *JAMA*, Vol. 181, No. 13, 1962.



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The Journal
of the INDIANA STATE MEDICAL ASSOCIATION

Devoted to the interests of the medical profession of Indiana

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State Police Lt. Paul Resigns for U. S. Post

INDIANA STATE POLICE Lt. Elmer C. Paul, famous for studies in automobile crash injuries and prevention, has accepted a position in the accident prevention division of the U. S. Department of Health, Education and Welfare. He assumed his new duties soon after Nov. 20.



Lt. Paul was instrumental in originating the automobile crash injury research for the Indiana State Police. Early in his studies he obtained the cooperation of the Indiana State Medical Association. Since then the research work has been adopted by Cornell University, has spread to many other states, and in each new location has been conducted with medical cooperation.

Lt. Paul and State Police Superintendent John J. Barton represented the Indiana State Police earlier this year when the department received a citation for outstanding work in automobile safety from the *Medical Tribune* in New York City.

Most of the safety devices and mechanisms that have been incorporated in automobiles during the past ten years have come as a direct result of the epidemiological studies of automobile injury conducted along the lines originated by Lt. Paul. His finding that two out of five highway fatalities in automobiles could be prevented by the use of seat belts has been corroborated many times by observers in many states. His work also has demonstrated the life saving potential of non-opening doors, safer steering wheels and interior padding.

Lt. Paul is well known, not only for his research work, but also for his hard work, perseverance and devotion to duty with which he has spread the knowledge which he created. Seat belts in the car do no good unless the occupants are motivated strongly enough to use them as a matter of habit. Lt. Paul has traveled widely in the United

States and Canada with exhibits and lectures for the indoctrination of the public.

The medical profession of Indiana, and indeed every citizen, can be proud of Lt. Paul's trailblazing work. He was a fine officer in an outstanding organization and leaves Indiana with all best wishes and sincerest high regards.

FDA Finds Filthy Food Illegal

FILTHY OR SPOILED FOOD does not have to be harmful to be illegal. This is the decision of a Federal District Court recently in regard to a suit by the Food and Drug Administration against a packer who shipped tomato catsup which contained decomposed tomato material. The packer defended the catsup by emphasizing that it was not harmful to health. The judge decided that even if it was harmless, it came under the provisions of the law as adulterated.

A decision on a food which involves similar considerations was being sought this summer. The specifications for fish flour prescribe that it shall be made from edible, cleaned fish after discarding heads, tails, fins, viscera and intestinal contents. Fish flour, when properly made, is a good and economical source of protein. Some food processors would like to make fish flour from whole fish, and by grinding the product fine and sterilizing it, make it harmless to health and considerably cheaper. The FDA is attempting to convince the courts that people should not eat sterilized fish intestines even if they don't know what it is.

While the FDA concerns itself with sanitary and esthetic factors in food products, it also has a watchful eye for deceptive packaging. A quantity of "giant economy size" jars of instant coffee was seized this summer because the large size jar (10 oz.) was being sold for 1.9 cents more per ounce than the same product in 6 oz. jars. In another seizure, packages of instant coffee and tea were seized in Richmond, Indiana because of short weight.

Deceptiveness inherent in the size and shape of the package has been the subject of suits in the past. Courts have ruled that packaging which is potentially deceptive is illegal unless the packer can prove that the size or shape of the package has a necessary function.

And, not content with all the above considerations, the department finds that it must monitor the purveyors of food preparation devices. A broiler with a quartz plate between the heating element and the food pan was offered for sale with the statement that the cooker would protect against heart disease and would promote longer life because it destroyed the cholesterol and fat in the food as it was cooking. The charges filed by FDA were to the effect that the claims were "false and misleading"—a complete understatement.

"Nutritional quackery," as exemplified by safflower oil in capsules for reducing cholesterol levels, by the sale of vitamins with false claims for alleviation of over 500 diseases, by the promotion of vegetable juices and herb extracts for treatment of cancer and by false claims for the virtues of sea water as a supplement to the diet, continues to emerge in all parts of the country and to be eliminated by the careful work of FDA inspectors.

We must be getting more mileage out of the few tax dollars the FDA spends than we do out of anything else the federal government does for us.

Guest Editorials

Postal Blight

MAIL-ORDER PRESCRIPTIONS, the latest nightmare to disturb the retail drug industry, could develop into an annoying public health problem as well as a serious threat to the local druggist's income. While it is hardly likely that a patient will mail-

order to Chicago, Los Angeles or Union City, Tennessee, for a prescription he needs immediately, it is very probable that the attraction of a money-saving price will induce him to mail-order pharmaceuticals that he uses constantly over a long period of time. When this happens the patient-physician-pharmacist relationship is disturbed, and the element of control necessary to successful medical care is compromised.

When a patient has a prescription filled locally, the pharmacist who fills it is subject to the same pressures enjoining conscientious performance as any other professional man in the same community. But when the prescription is filled hundreds of miles away, the patient is merely an unseen customer who may or may not order again, and the prescription is reduced to the status of a commodity to be produced in greatest quantity at lowest cost.

To combat the evil that mail-order prescriptions could become, the cooperation of both physicians and local druggists is required. Doctors should urge their patients to think twice before succumbing to the temptations of mail-order economy in the area of ethical pharmaceuticals. The delays inherent in mail-ordering as well as the uncertainty as to what is delivered—and when—should convince the reasonable patient that he is ahead by having his prescription filled by his regular local druggist.

At the same time the local druggist can make mail-order prescriptions less attractive by reviewing his pricing policies. The patient's ignorance of what a pharmaceutical should cost and the emergency nature of the prescription must never encourage an unconscionable overcharge. Apart from price, the local druggist can look to the improvement of the quality of his service as well as to the enhancement of the concept of the pharmacist as a professional person rather than as a competitive businessman.

Patients can't be blamed for wanting to save a dollar or two where possible. It is up to the doctor to explain the danger of mail-order pharmaceuticals, and it is up to the druggist to make it as unattractive as possible to write away for drugs. If doctors and pharmacists help each other in this respect, the growth of mail-order prescriptions can be restrained and the public health problem it poses can be avoided.—

D. N. Goldstein, M.D.,
Editorial Director

Reprinted from the *Wisconsin Medical Journal.*

I.U.'s 12th President

IT IS EVIDENT from the inaugural address of Dr. Elvis J. Stahr jr., yesterday that he is fully aware of the challenges and responsibilities that confront Indiana University.

Dr. Stahr yesterday officially became I.U.'s 12th president, the chief administrator of one of the nation's great educational institutions.

He sees the responsibility of the university as dual: To maintain a unity of knowledge in the face of the dramatic contemporary surge of discovery, and to encourage and nurture new knowledge.

And he recognizes the global conflict that overshadows the world, and the responsibilities confronting America and all free peoples.

These responsibilities are primarily two. First, to continue to build free societies in which man can cultivate the fruits of freedom; and second, to maintain military power which will deter the enemies of freedom from attempting to destroy or overrun us.

Education, he added, is important to both.

Indiana University, in Stahr's opinion, must not stand still. He expressed a deep conviction that the economic future of this state and region depends on intensified efforts in many fields of research. For he warns that if adequate investment is not made in the development of the abundant native brainpower, the center of industrial productivity will move out of the Middle West, and the state will become an economic wasteland.

Dr. Stahr has become the president of a university whose growth and academic

achievements have been at the least remarkable within the last 25 years, during the tenure of Dr. Herman B Wells. In his address he paid an apt tribute to his predecessor in describing Dr. Wells as one of the great educational statesmen of the 20th Century.

Stahr's inaugural address indicates clearly that he is a man thoroughly convinced of the importance of education as a bulwark of freedom. He sees the university as a repository of knowledge, a laboratory for the discovery of new knowledge and an open door to the young people of Indiana to intellectual development.

It appears that the future of Indiana University is in good hands. Dr. Stahr can be assured that not only the university alumni and student body, but the entire state, extend their best wishes in his great task.

Reprinted from *The Indianapolis News*, Nov. 20, 1962.

Editorial Notes . . .

Prevention of infections in nurseries for newborn babies has prompted a change in U. S. Public Health recommendations for construction and use of nurseries. Each nursery room should contain no more than eight to ten bassinets as this is approximately the ideal number for one nurse to care for. Another new idea is to utilize four bassinet nurseries and to admit to each nursery babies born within 48 hours of each other. One nurse may care for two nurseries under this system. The advantage is that the small rooms will become vacant at fairly regular intervals and may be completely scrubbed each time.

Many epileptics may now buy life insurance. Medical advances in diagnosis and treatment have made it possible for some epileptics to live normal and useful lives, and enables some of them to obtain life insurance either at a premium or in some instances at standard rates. Rating depends on the form of epilepsy and severity of symptoms. Extra premiums for grand mal are apt to be higher than extra premiums for petit mal and Jacksonian epilepsy. The length of time since the condition was diagnosed, the length of time since the last attack, and the frequency of attacks prior to medical control are all factors considered in writing policies.

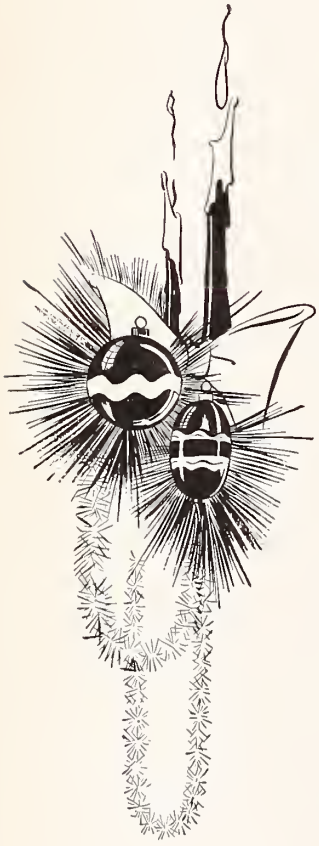
Heart disease and the stress of modern living is the subject of an article in *The New Physician*. Eight outstanding cardiologists were interviewed. The consensus of opinion was that the heart stands the strain very well, but may not withstand the softness of modern living with equal success. Rules for healthy hearts were reasonable amounts of exercise, rest and sensible diet. There have been times in the past when strains, tensions and anxieties were at a higher level than they are today. Adaptation by the heart to such strains has made it a remarkably tough organ. Dr. Hans Selye noted that each person has his own natural "stress level" and that any forced deviation from his natural base-line may have ill effects. Naturally active people should not be restrained —naturally passive people should not be urged to an unnatural level of activity.

A medical postgraduate training program has been made possible in Evansville by a three-year $51,000 grant from Mead Johnson and Company Foundation to the newly organized Evansville Institute for Continuing Medical Education and Research. The program originated among a few staff members at the Welborn Memorial Baptist Hospital and was then expanded. Not only Evansville, but the contiguous portions of Indiana, Kentucky and Illinois will comprise the area from which doctors will be invited to meetings in various parts of Evansville.

Excisional surgery of solitary lung nodules discovered by routine chest x-ray is proving to be the best way to establish a

definite diagnosis and to achieve the earliest and most effective treatment. Seventy VA and Armed Forces hospitals pooled their experience on 900 male patients who were operated upon for single lung nodules. Fifty-five percent of the nodules in men over 50 were cancerous. Some of the nodules were due to tuberculosis, histoplasmosis or coccidioidomycosis; in these the skin tests were not particularly reliable in indicating whether the nodule was inflammatory or neoplastic.

An arthritis "remedy" called Liefcort is being illegally imported into the United States from Canada by persons who go to Canada to obtain it as a result of an article in a national magazine last May. Liefcort contains estradiol, prednisone and testosterone. The U. S. Food and Drug Administration has determined that the product contains ten times the therapeutic dose of estradiol. USF&DA points out that testosterone and estradiol have no beneficial effect on arthritis and that prednisone to be effective must be controlled carefully. Liefcort has caused the death of at least one patient. No one in the United States has been authorized to use the preparation. ◄



About Our Cover

At long last the great day approaches, the festive spirit grows and glows, Christmas Day is nearly here!

Haven't you noticed though that each year it seems that preparations for Christmas get under way earlier and earlier? Stores decked in tinselled gaiety the first week in November . . . weeks before the Thanksgiving turkey has met his fate! The thought occurs to me that the time is rapidly coming when Santa Claus and all his reindeer, including that red nosed one, will take up permanent residence down here and cease the annual trek from the North Pole!

This year even the weather was premature, snow in October, an early foretaste perhaps of what we all dream of: A White Christmas—well, who knows, maybe this year we will awake on Christmas morning to find a world bedecked with dazzling white. Do I hear groans from snow shovellers as they contemplate their impassable driveways? Such groans will be drowned by the excited shrieks of children preparing to try out new sleds and skis the very moment the decorative wrappings have been torn away.

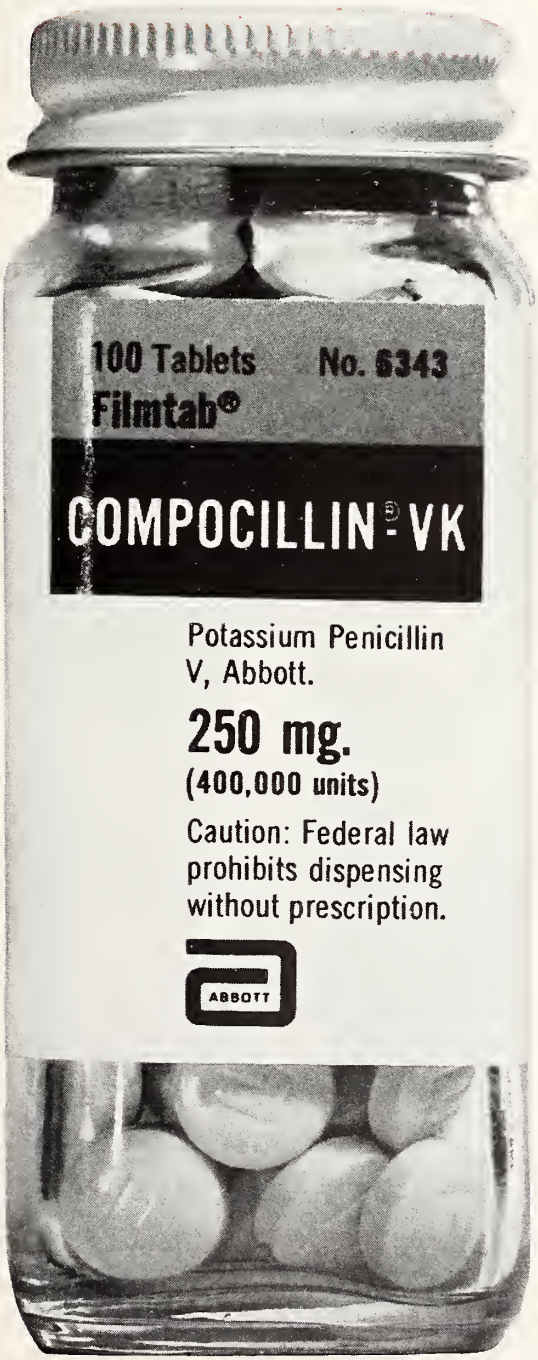
On a more serious vein, let us all hope that 1963 will bring peace to a war-torn, war-threatened world, that medicine will make still longer and greater strides toward solutions of the ills that beset mankind and that those twin spectres —famine and pestilence—will not raise their heads to exact their grim toll from suffering humanity.

The editor and staff of The Journal would like to take a small liberty with some lines by Charles Dickens to express their sentiments at this season:

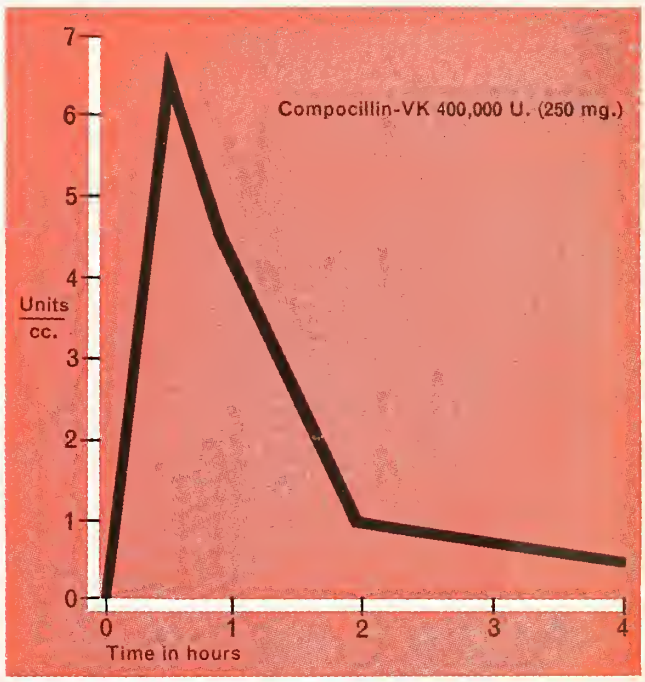
> *"Our best wishes for your merry Christmases and your happy New Years, your long lives and your true prosperities. Worth twenty pound good if they are delivered as we send them. Remember! Here's a final prescription added, 'To be taken for life'."*

This beautiful Christmas cover was drawn especially for The Journal by Laszlo Balogh, a native of Hungary, now living in Indianapolis.—M.E.R.

PEAK EFFICIENCY WHEN YOU NEED IT



Single Oral Doses to Fasting Subjects*



Then, for severe infections...

. . . where your primary concern is high peak serum concentrations, you can prescribe Compocillin-VK at *full therapeutic dosage* and get the maximum antibacterial activity possible with an oral penicillin. The chart above shows the rapid peak blood levels obtained with 400,000 units (250 mg.) of Compocillin-VK. Actually, these peaks occur faster—and are higher—than those obtained with intramuscular penicillin G. Indeed, Compocillin-VK has been used in cases previously reserved for parenteral treatment. The safety advantage (oral vs. injectable) goes without saying.

*Chart data from two separate studies completed by the Microbiologic and Medical Departments of Abbott Laboratories.

ABBOTT LABORATORIES NORTH CHICAGO, ILLINOIS

210274

Pharmaceutical Promotion And its Impact on the Practice of Medicine

T. F. DAVIES HAINES*
Summit, New Jersey

IN ALL ITS educational, informational, and promotional activities the prescription drug industry is trying to strike some kind of viable balance or working adjustment, between two factors: the prodigious demands on the time of the physician, and the rapid multiplication of new drugs and therapeutic technics.

To resolve the problem and to fill the need, the pharmaceutical industry has developed three main avenues: direct mail literature, advertising in the journals and the detailman. We have also used such supplementary methods as symposia, motion pictures, slides, recorded lectures and closed circuit television. In all these efforts our intent has been: first, to spread as widely as possible what we consider to be vital medical information; and second, to make the best possible use of the practitioner's precious time.

Communication Imperative

For a classic example of the importance of rapid and wide communication in medicine, let's go back to the story of penicillin.

Fleming first observed his mold in 1928. But awareness of his discovery did not spread much beyond the rim of the dish on his window sill or the margins of the pages of a journal or two. For ten long years it languished, a laboratory curiosity and little more. In 1938, the British made enough to try it on a patient—a London bobby with a massive infection of the head. But the result was tragic. The symptoms receded, but the supply ran out. The patient died. Some more was made and tried on a child, and this time it worked. Penicillin had scored its first victory.

By now, World War II was on. The British were in no position to solve the intricacies of producing this marvelous novelty, this thing called an antibiotic. So they sent out their appeal. They *communicated* with all the urgency of four bells from the firehouse. And, to borrow a phrase from the current idiom, we got the message.

Thanks to our mastery of the deep vat fermentation process, among other factors, plus an abundance of human energy, the American pharmaceutical manufacturer got penicillin into mass production so swiftly that before the end of the war it had already saved thousands of lives on the battlefield, and was on its way into the domestic pharmacopoeia. But none of this would have occurred if there had been no *communication.*

We communicate in order that these agents—this amazing arsenal of weapons —will be understood and used. We also communicate in order to preserve the economic system which produced them.

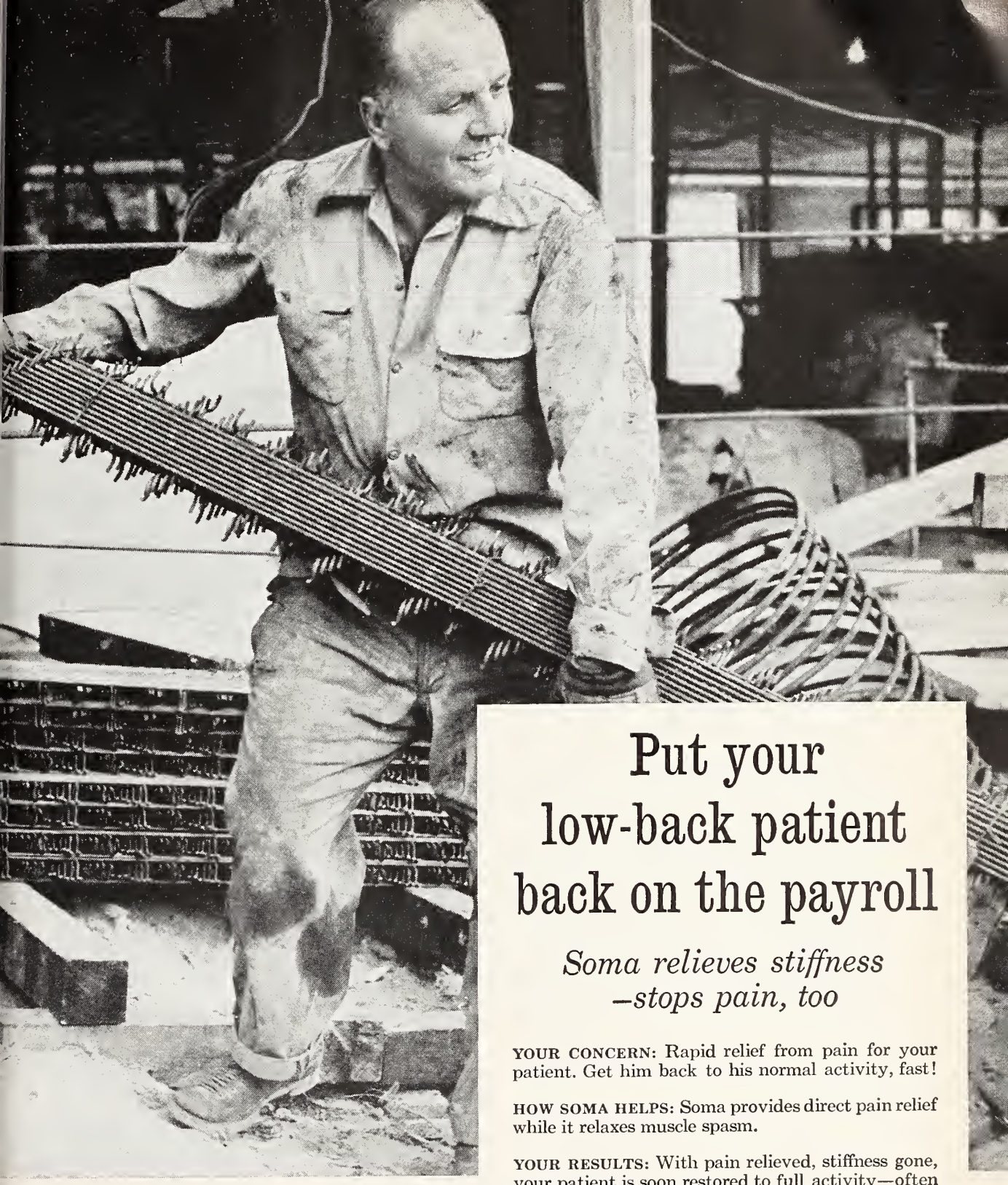
The Detailman

To hear some of our critics talk, you might assume that we embraced the detailing system solely because it is expensive. The accusation is quite in error. Whatever else we may be, we are not spendthrifts or wasters of our substance. We cannot afford to be. We are, after all, accountable to our stockholders. Our methods are dictated by the nature and importance of our products, the exigencies of the times, the American economic system and the marching pace of modern medicine.

The detailman seemed to be the logical answer to a critical problem of communication, to the advantage of the doctor, in the

Continued

* President, Ciba Pharmaceutical Company.



Put your low-back patient back on the payroll

Soma relieves stiffness —stops pain, too

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, fast!

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

> Kestler reports in controlled study: *Average time for restoring patients to full activity: with Soma, 11.5 days; without Soma, 41 days.* (*J.A.M.A. Vol. 172, No. 18, April 30, 1960.*)

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets. USUAL DOSAGE: 1 TABLET Q.I.D.

The muscle relaxant with an independent pain-relieving action

SOMA®

(carisoprodol, Wallace)

Wallace Laboratories, Cranbury, New Jersey

Continued

best interests of the drug maker and for the welfare of the patient.

What manner of person is this emissary? Generally, the detailman has a scientific background, frequently premedical or pharmaceutical. He has learned the necessary physiology and been thoroughly briefed on his products by company physicians—not only on indications, but also on contraindications, reactions and side effects. He knows the current literature. He is familiar with the clinical studies. He can answer the doctor's questions. And if he does not have an answer, he knows how to get it from his medical department.

In 1957, the department of pharmacology of a well-known medical school embarked on a three day project designed to teach medical students how to evaluate drug promotion. The reason for the undertaking was stated in a journal report: "It seemed clear that this advertising was exerting an unprecedented influence on the physician's prescribing—much of it unfavorable."[1]

That approach, I need hardly point out, is scarcely scientific. It is a prejudgment, not an hypothesis—the truth of which was to be impartially tested. It admits bias at the outset, a determination not to discover the truth, but to document an *a priori* conclusion. Yet, despite this conditioning by their faculty, how did the students themselves in the course of this venture come finally to assess the detailman? This is the substance of their conclusion:

"As expected, the detailmen representing the reliable companies were themselves generally reliable and trustworthy. However, we were pleasantly surprised to find that even those representing the companies that were rated unreliable almost uniformly adhered to high ethical standards. . . . In general, it appeared that the detailmen regarded themselves as being more than mere salesmen and considered themselves to be professional assistants or associates of the physician."[1]

Medical Journals

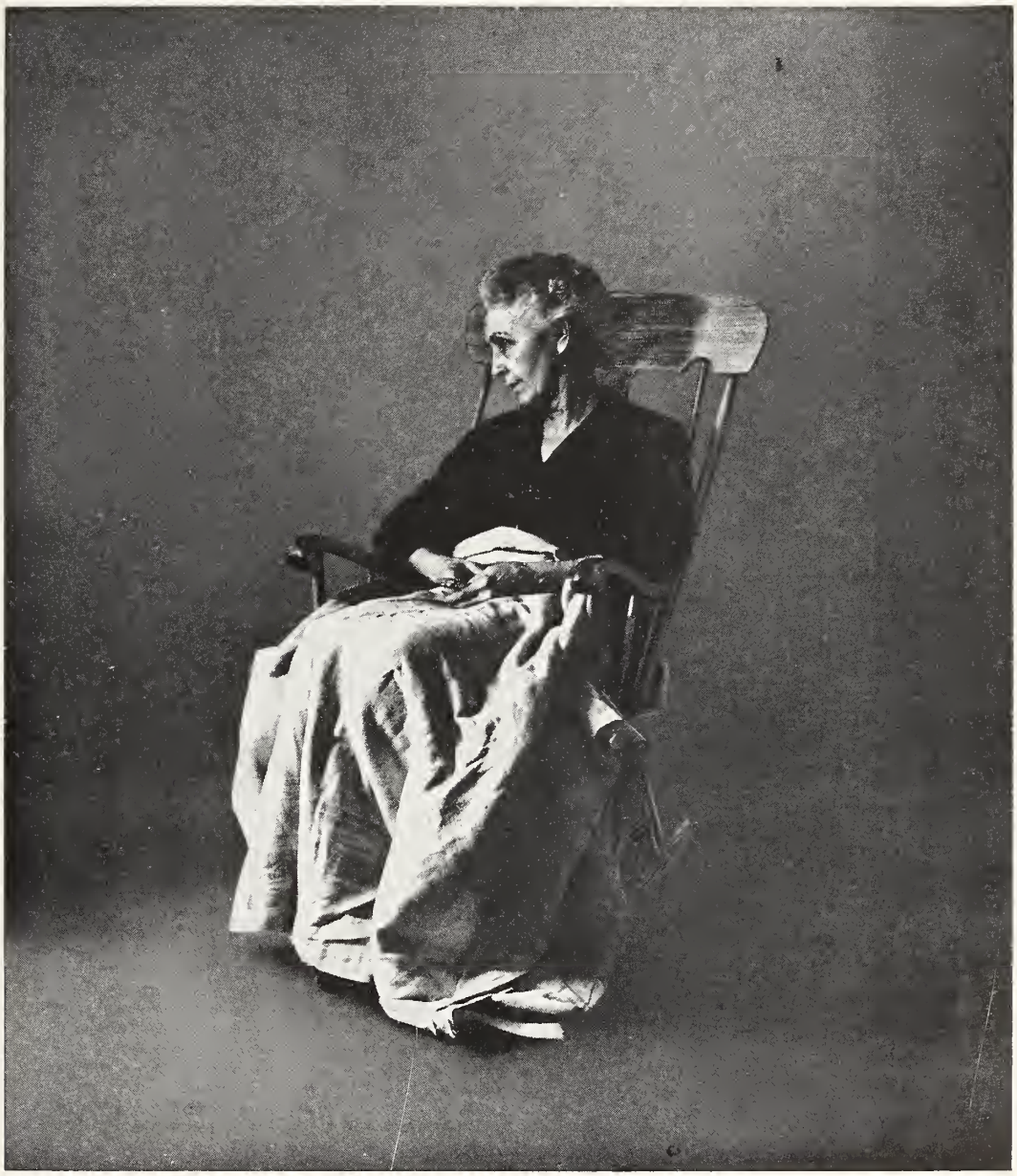
It has been suggested by some purists that the physician should base his judgment of new prescriptions solely on his reading of medical journals. To be sure, these journals are the indispensable mainstream of medical knowledge. But to expect the busy doctor to read all 300 or more journals now periodically in print is unrealistic. Indeed, many important papers never achieve publication at all. To absorb all this mass of reading matter, to collate, to compare, to weigh and assess every clinical report would be a job of encyclopedic proportions. To do so, the physician would cease to practice medicine; he would become an editor, and a sorely overworked one at that. As Commissioner Larrick of the Food and Drug Administration recently stated in testimony before a Senate committee: "If an individual attempted to read all the papers published in the United States alone in his specialty, he would have little or no time left over for anything else."

The major pharmaceutical houses have the facilities and the staffs to spare the individual physician much of this postgraduate drudgery. We retain qualified medical writers and physicians who supervise them, to summarize and digest quantities of material, concisely, readably, objectively—with the intent that the physician can readily obtain the information he wishes to use our products to the best advantage. This communication process has proved to be a two-way street because we receive about 6,000 letters and more than 1,000 phone calls each year from physicians who, stimulated by our literature, want to ask their own questions about our products.

It is obvious that physicians want this information but they do not want to be deluged by it. The problem is to find some practical yet legal procedure by which, in a society dedicated to the doctrine of free competition, the volume of this information can be controlled.

Someone once suggested that the problem could be solved if all the pharmaceutical companies got together and agreed on some common ground rules to avoid the possibility of the over-promotion of drug prod-

Continued



Especially useful in chronic pain, Darvon® Compound-65 effectively relieves inflammation and pain . . . does not cause addiction or tolerance (. . . and Darvon Compound-65 doesn't require a narcotic prescription). Each Pulvule® Darvon Compound-65 provides 65 mg. Darvon®, 162 mg. acetophenetidin, 227 mg. A. S. A.®, and 32.4 mg. caffeine. Usual dosage is 1 Pulvule three or four times daily. This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana.

DARVON® COMPOUND-65 Lilly

Darvon® Compound (dextro propoxyphene and acetylsalicylic acid compound, Lilly); Darvon® (dextro propoxyphene hydrochloride, Lilly) (α-*d*-4-dimethylamino-1,2-diphenyl-3-methyl-2-propionoxybutane hydrochloride); A.S.A.® (acetylsalicylic acid, Lilly) 220212

ucts. One thing wrong with this idea is that we have antitrust laws in this country and the Department of Justice frowns on such intercompany agreements. In other words, it is against the law! Even if it were not, I doubt that such an arrangement would prove workable.

That puts it squarely up to the individual company to set its own standards—rather than allowing itself to be led entirely by competitive forces. We believe at Ciba—and I am sure the attitude is general in the industry—that our aim is not *more* promotion, but *better* promotion.

Ciba Media

Let us begin with one example of the "promotional" material we furnish the physician, the *Clinical Symposia*. It contains complete reports of important clinical work by leading physicians, and also contains Ciba product advertisements. These advertisements rarely give enough information about the drug to allow the physician to prescribe it if he is not familiar with it. But they do remind the physician that a product is available for a particular condition and that further information about it can be obtained from our detailmen or directly from the company's medical division. This publication, due to punctilious editing and its high-level informational value, enjoys the confidence and esteem of the medical profession.

It is stretching a point, for example, even to categorize as promotion *The Ciba Collection of Medical Illustrations*. When completed, this compendium will include some 20 thousand illustrations by Dr. Frank Netter of every system of the human body. The volumes are available at cost to physicians and medical students. We are also producing, in cooperation with the Wayne State University School of Medicine, a series of teaching films on physical diagnosis.

We also contribute to the support of the Ciba Foundation, which each year invites leading authorities to assemble in England for the exchange of scientific information. In its first decade, this foundation had more than 6,000 distinguished visitors from 55 countries, and has sponsored 58 symposia and the publication of 50 volumes of proceedings.

In 1960 we spent more than $1 million on the *Clinical Symposia*, the newspaper *Medical News*, scientific exhibits, the Ciba Foundation, *The Collection of Medical Illustrations*, anatomical slides, medical motion pictures and closed circuit television. And in most of these exercises in communication, the content frequently wandered far afield from any immediate relevancy to Ciba products.

Lest all this sound excessively lofty or high-minded, may I emphasize that we are a self-acknowledged, profit-making segment of the free enterprise system—nor do we apologize for the fact.

We do recognize, however, that we can only serve ourselves by dedication to the service of others. We recognize that our own interest and the public interest coincide. We research, develop, and distribute materials on which life itself depends. Further, we know that if the agents that prevent, alleviate and heal are to perform their function, their availability must be known; and that if we are to survive in a competitive industry, they must be used.

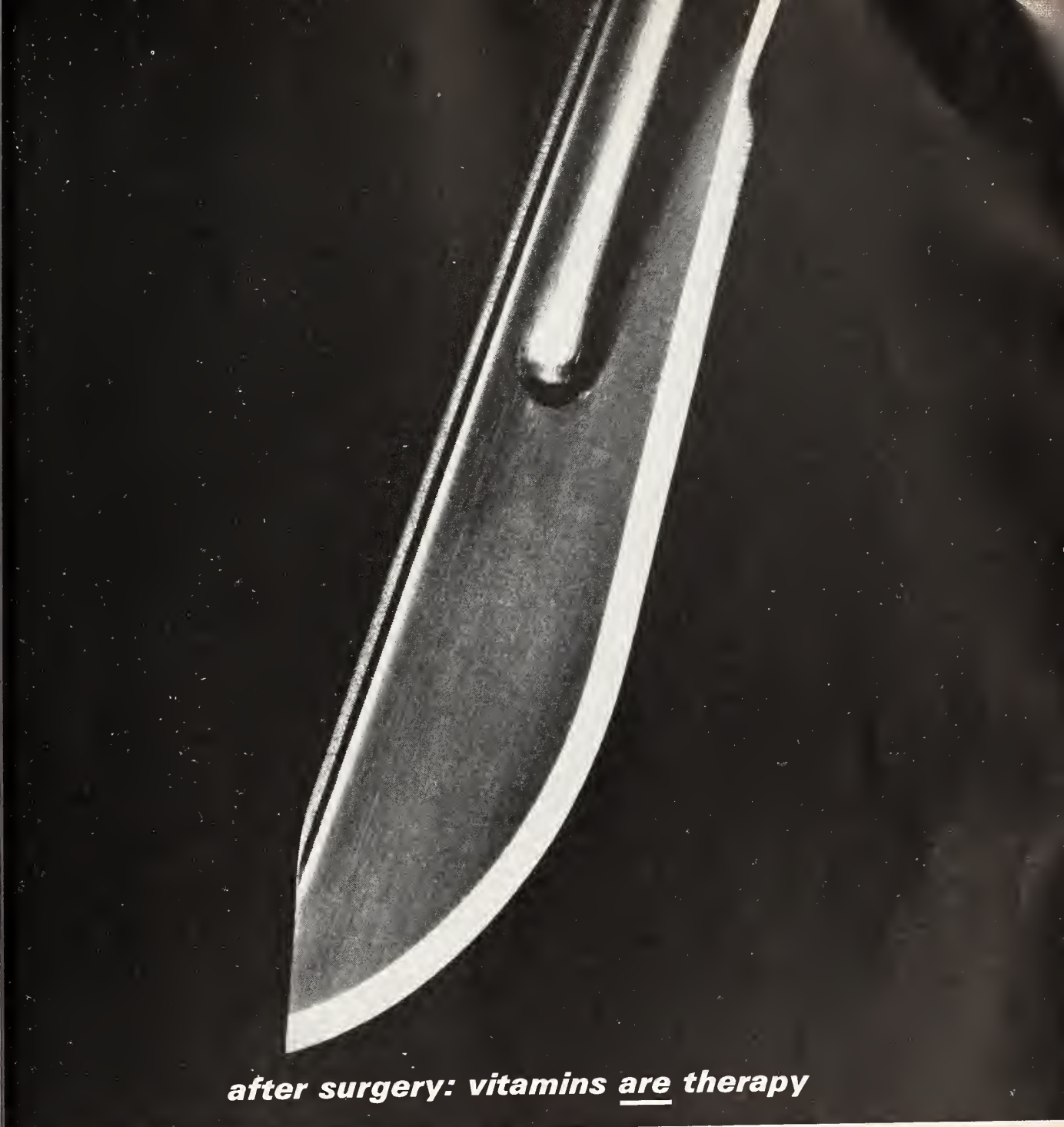
Drug Promotion and the Physician

The industry has been accused in some quarters of "brainwashing" the physician —of cajoling him by high-pressure promotion into dosing his patients indiscriminately and needlessly.

Such accusations are an insult to the doctor, as a scientist and as a human being. I need hardly point out that in every aspect of the physician's training and practice there have been built-in safeguards to prevent him from ever prescribing a drug merely because the clinical reports on it reached him in a fancy four-color brochure, or because the detailman who told him about it wore a pleasant smile.

Physicians are scientists. One of the first characteristics of the scientist is the capacity to select; he has an educated sense

Continued



after surgery: vitamins are therapy

Nutritional supplementation is basic to postoperative care. Therapeutic allowances of B and C vitamins help meet increased metabolic requirements and compensate for stress depletion. STRESSCAPS can set the patient on a more favorable course and contribute to full recovery. Packaged in decorative "reminder" jars of 30 and 100.

Each capsule contains:	
Vitamin B_1 (Thiamine Mononitrate)	10 mg.
Vitamin B_2 (Riboflavin)	10 mg.
Niacinamide	100 mg.
Vitamin C (Ascorbic Acid)	300 mg.
Vitamin B_6 (Pyridoxine HCl)	2 mg.
Vitamin B_{12} Crystalline	4 mcgm.
Calcium Pantothenate	20 mg.

Recommended intake: Adults, 1 capsule daily, or as directed by physician, for the treatment of vitamin deficiencies.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.

STRESSCAPS®

Stress Formula Vitamins Lederle



PHARMACEUTICAL PROMOTION

Continued

of what is pertinent and what is irrelevant; to achieve a desirable goal, he discriminates in his choice of direction. He alone has the responsibility to decide in each case what drug—if any—should be prescribed for the treatment of each individual patient.

Medical school curricula include courses in pharmacology, and I should like to quote from what one teacher has to say about the purpose and content of his own course.

"We feel that perhaps the most important aspect of a modern course in pharmacology is to prepare the student to evaluate information about drugs throughout his entire medical career. . . . One, drugs must produce their effect through a finite (if presently unknown) number of physiological mechanisms. . . . Two, drugs, like diseases, can be classified into groups having similar, but not identical, actions. . . . Three, differences among effects of drugs within a given class may often be ascribed to differences in their rates of absorption, their specific pattern of distribution, or their rates of metabolism and/or excretion. . . . Four, the evaluation of drug effects can be no more valid or reliable than the data upon which the evaluation is based. . . . Using such intellectual tools as these, the student—when he becomes a physician —will be able to judge for himself the claims made for new drugs."[2]

Those are ground rules which we accept. The basis on which we want our communication to be judged.

When a pharmaceutical company communicates through its promotional material with physicians, it assumes that it is speaking to mentally-mature men and women who have a right to the honored title "doctor of medicine."

Consequently, a pharmaceutical company does not feel itself called upon to instruct physicians as to whether one of his patients suffering from cardiovascular disease should be treated with drugs or by diet or other means, or to warn, on every label, of the generally known fact that morphine is addicting.

If we were as irresponsible and as careless of the facts in our laboratories, in our pharmacology, in our clinical testing, in our quality control procedures—and yes, in our promotion—as are some of our critics in Congress and elsewhere, then we would all have reason to fear for the future of medicine.

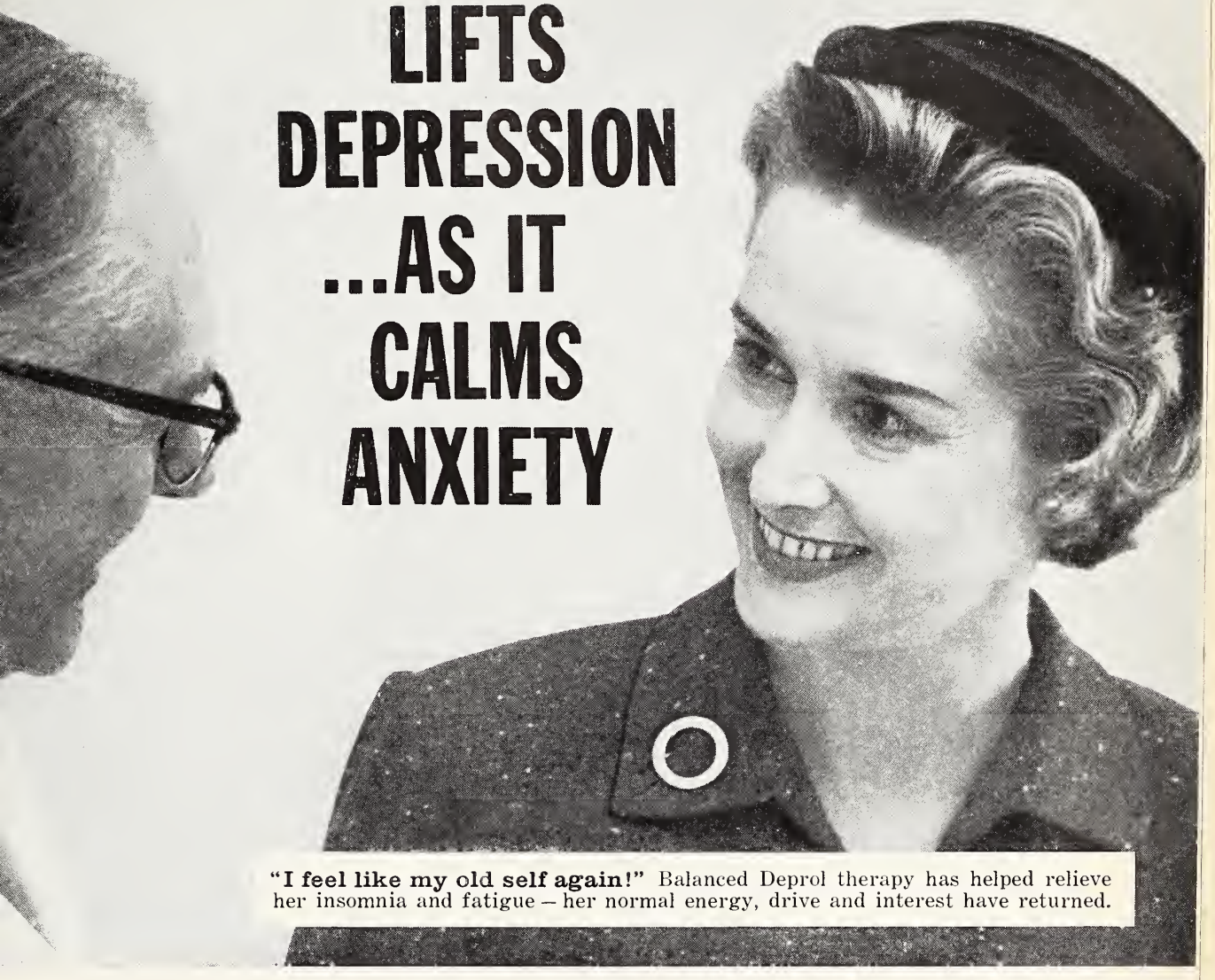
We make no pretense to perfection. For one thing, we're human; for another, we're highly competitive. And our growth rate has been rapid. Some isolated excesses were inevitable. On occasion, perhaps, in our anxiety to be heard, too many of us have shouted at once. There may now and then have been a kind of gaudy clamor, manifested in extravagant formats and an avalanche of mail.

High Degree of Responsibility

But again, let us not confuse tactics with objectives, the method with the mission. The remarkable fact is the high degree of responsibility which has so consistently been observed by the mainstream of the

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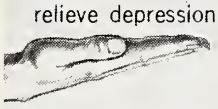
LIFTS DEPRESSION ...AS IT CALMS ANXIETY



"I feel like my old self again!" Balanced Deprol therapy has helped relieve her insomnia and fatigue – her normal energy, drive and interest have returned.

Brightens mood...relaxes tension

Energizers relieve depression





Deprol both lifts depression and calms anxiety





Tranquilizers reduce anxiety

CD-7393

Dosage: Usual starting dose is 1 tablet q.i.d. When necessary, this may be increased gradually up to 3 tablets q.i.d. With establishment of relief, the dose may be reduced gradually to maintenance levels.

Composition: 1 mg. 2-diethylaminoethyl benzilate hydrochloride (benactyzine HCl) and 400 mg. meprobamate.

Supplied: Bottles of 50 light-pink, scored tablets.

Write for literature and samples.

▲Deprol▲®

WALLACE LABORATORIES
Cranbury, N. J.

PHARMACEUTICAL PROMOTION

Continued

industry and its leaders—a responsibility which even our detractors have been forced to concede.

We may even have taken too much for granted concerning our relationship to the medical profession itself. We may have assumed a degree of understanding which is not in fact universal, a general acceptance of our complementary status as fellow members of a team.

If this is so—if there has arisen an idea that there is a conflict between us, that our interests are not identical but inimical, and that our effectiveness does not depend one upon the other—then we need to explore a whole new dimension in our communication. We must face one another on a level of communication other than that of dosage forms and modes of action, and agree on some meanings in the vocabulary of human relationships.

One man's promotion may be another man's education. One man's advertising may be another man's "huckstering." But let us not fall into semantic traps or pitfalls of terminology which jeopardize the goals on which we all agree.

I sometimes suspect that our most persistent and vocal critics are not so much interested in correcting our alleged abuses within the context of American medicine, as in undermining the very structure of American medicine itself. As one man frankly suggested to a Congressional subcommittee: "Drugs should be treated like a public utility."

Our critics profess to be attacking our logistics—the way to get the newest weapons on target in the shortest possible time. But the whole process is a single piece, and you can't snip a thread here or unravel a thread there without weakening the whole fabric. To control prescription drugs as a public utility would be to chill an organic and creative human adventure with the cold hand of bureaucracy. It would clog initiative, dry up research, and by undermining enterprise, it would threaten the private practice of medicine and the welfare of those whom physicians are sworn professionally to succor and to heal.

We believe in our industry—the whole system—for the oldest reason known to medicine. The empirical reason. It works. We hope the medical profession believes in it too.

REFERENCES

1. Garb, S.: Teaching Medical Students to Evaluate Drug Advertising. *Journal of Medical Education*, 35:729-739, August, 1960.
2. Kiplinger, G. F.: What Do Medical Students Learn About Drugs? *American Professional Pharmacist*, 27:31-32, September, 1961. ◄



a Private Psychiatric Center at Jacksonville, Illinois, *since 1901*

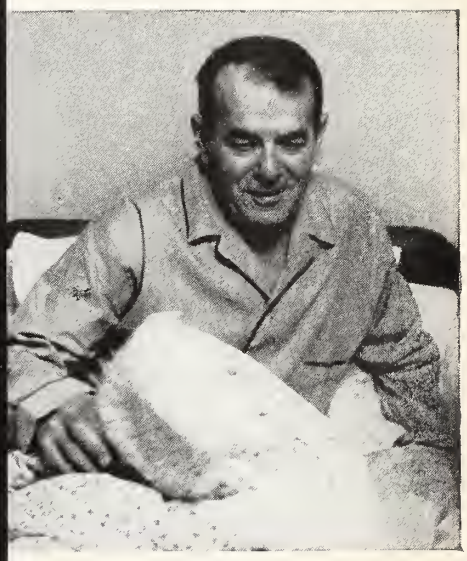
Complete psychiatric treatment in an environment for cure. A 60 bed hospital with the most modern diagnostic and therapeutic equipment for the treatment of nervous and mental disorders.

LICENSED: Illinois Department of Mental Health

MEMBER: Illinois Medical Service (Blue Cross-Blue Shield)



night, the arthritic wakes up comfortable



Morning stiffness may be reduced or even eliminated as a result of therapy with the only steroid in long-acting form. And the slow, steady release of steroid makes it possible in some cases to reduce the frequency of administration and/or the total daily steroid dosage.

Medrol* Medules*

Each hard-filled capsule contains Medrol (methylprednisolone) 4 mg. Also available in 2 mg. soft elastic capsules.

Supplied in bottles of 30 and 100.

Upjohn

The Upjohn Company, Kalamazoo, Michigan

Reminder advertisement.
Please see package insert for detailed product information.

Doctor Diplomats

More News from the Congo

KAPANGA is bush country—far removed from anything resembling a modern city. There is no sanitation, no water supply except the few springs nearby and no sewage disposal. Waste is simply dropped where it is most convenient and garbage left for the roaming swine, chickens, goats and sheep to clean up as they choose. There are no paved streets, no sidewalks, no traffic cops, no parking meters. The moonless nights are black except for the occasional flicker of a wood-fire or kerosene lantern, or a red glow on the horizon from a distant brush fire. The odors are exotic but not unpleasant; the burning wood has a somewhat pungent aroma, and the blooming mango and citrus trees are positively fragrant.

Piper Memorial Hospital at the Mission Methodiste, Kapanga, is a fully established and functioning hospital—Congo style. Founded in 1914 by Dr. Piper, the present building was erected in 1954, of baked mud-brick and mud mortar, with an outer coating of cement. It is generous and well planned for the work that must be done here. There is a large dispensary, separate from the hospital, where from 100 to 150 patients are seen daily by trained African male "Infirmiers" (nurses). There are also eight outlying village dispensaries where 10 to 20 patients are seen daily, 24 days per month. Those requiring hospital care are referred into the hospital.

The doctor is frequently called to the dispensary when the nurse is in doubt as to diagnosis or treatment. The laboratory, pharmacy, x-ray building is between the dispensary and the main hospital building —connected to the latter by a covered walkway. The hospital, housing patients and offices, is in the shape of a U. As a continuation of each limb of the U, making a figure H, are separate buildings, again connected by a covered walkway—the surgery wing on one side and maternity wing on the other.

A separate and large pediatric building is in the rear. The old hospital now houses the tuberculosis patients. More critical and infectious patients with tuberculosis are housed in a small building further to the rear.

The hospital's capacity is 225 with 180 the average census. Last year 250 major operations were performed and 550 to 600 babies delivered. Total inpatients was 14,000 with 160,000 patient days in 1961.

There is only one physician here—serving an area the size of the state of Michigan. Dr. Glenn Eschtruth, formerly of Detroit, Michigan, is the one full-time missionary physician-surgeon. Fully 50-75% of his time is taken up with matters non-medical. To understand the reason for this you must know something of the nature of the African.

Africa is different—it cannot be judged by American or European standards. The country is vast and empty except for a few large cities.

The tribe is still the dominant influence in the life of an African. The modern political parties are essentially the separate tribes. In Katanga there are six major tribes with six distinct languages. Difficult

Editor's Note: Dr. Sedam has now resumed his practice in Indianapolis.

to learn, they are rarely understood by anyone outside the tribe. French is the language for teaching in the schools. Only 15-20% are literate and in some villages no one reads or writes. A system of chiefs control the tribes from the big chief Mwat Yavu, to the smallest chief in the smallest village. Very gradually this control is being relinquished to government.

Witchcraft, sorcery, charms, black magic all play a subtle, but all pervading part in the life of the African. Anything he doesn't understand is readily explained on the basis of witchcraft or fatalism. Some will actually not let me take their picture for fear they will no longer be themselves, but "in the little black box." The missionaries don't preach the horrors of hell as penalty for sin, because these people are so constantly surrounded by fear from cradle to grave that one more fear means little. They are not immune to fear—they are inured to it.

Time means little or nothing to most Africans. He has no idea how old he is or when his birthday is. The day of the month or year mean nothing to him. If you don't do it today, there is always tomorrow. What is there to look forward to? Having babies, a large family, festival days, having babies, stuffing your belly with ruku or manioc, having babies—but now, for a few, there is a strong desire for education so that they may get the fabulous salaries offered in teaching, nursing, government and politics.

The average income of a Katangese family is $90 to $125 *per year;* the average teacher's salary is $140-$300 *per month,* and there is no limit for the politician. Graft and corruption in office, great and small, is taken for granted, and if you manage well in corruption, your constituents are more apt to vote you back in office.

Family ties are strong in Katanga, and every member of your tribe is your brother. It is not exactly stealing if I come to your house and take one of your chairs and one of your chickens—for you have two and I have none. It doesn't matter that you are better educated, better qualified, work longer and harder than I do, you are still my brother and must share your worldly goods with me. Around the hospital and the missionary homes, if it isn't locked up, its free to be taken by the passerby. Now this is the norm—the average. There are very distinct exceptions, and in these exceptions we see the great hope for the future of the Congo—as we do in all peoples everywhere.

The average African knows little of machinery or the necessity of care and maintenance in any kind of equipment. If his hut burns down he will simply build another with the material all about him, free for the taking. If the spring stops flowing or the soil does not produce well, or he simply doesn't like where he is living . . . he moves. No real estate transaction—all he needs is the permission of the chief. No moving costs, all his earthly possessions can be carried on the heads of his family. For food there is the ubiquitous manioc or cassava. Flour made from its roots is their staple food. No stranger need go hungry . . . all he need do is mark the direction of his travel in the dirt alongside where he dug up his meal. Fish and wild life are free for the taking . . . if you can take them. Sex is their principle avocation —or his vocation, for women do all the field work. Until missionaries taught monogamy, polygamy was the rule, so it is evident that that need was readily satisfied.

Now all of this means everything to the doctor and the kind of hospital he can operate. Machinery, the water pump, generator, sterilizers, cars, trucks, tractors, even down to the humble but necessary kerosene lantern can be entrusted to only a select few. And then, when things break down, you know who must fix them. It isn't that the African is incapable of learning, some are exceptionally bright, but they have such an heritage to overcome first. And it seems that no matter how well educated they become they are still influenced by ancient customs, mores, mass thinking regarding the mysterious or unknown. Perhaps that is why the American negro, returned, is not accepted as an African—he doesn't think like an African.

Though we have an ambulance here

(Volkswagen), it is seldom used for transporting patients. They walk, some of them for long distances. The critically ill are carried, either in the arms of another or on a bed made of reeds. Nearly always they are accompanied by a relative; sometimes the whole family. The hospital has no dietary department. All the cooking for the patient is done by his or her family. It is not uncommon for a family of six to eight to live on the hospital grounds for a month or more until the relative is ready to go home. Cooking is done under one of four grass shelters, or, in the dry season, out in the open, under one of the large mango trees, with three stones, a wood fire and a pot.

Why stay four to six weeks? Disease is the rule in Africa—from birth to death they are chronically ill with one to five diseases at the same time. So, routinely, all patients are first sent to the laboratory for examination of blood, stool and urine. The lab work is done by trained Africans who are very proficient. The parasitic diseases most commonly found in order of frequency are: (1) malaria, (2) ankylostomiasis, (3) ascaris, (4) filariasis, (5) schistosomiasis. When found, routine orders are followed in their treatment. And not until these complicating diseases are treated is the patient taken to surgery.

Most patients are eager for an operation. They wait patiently, day after day, for the opportunity. There are no preoperative orders, no preanesthetic, no withholding of diet (rarely does an African eat breakfast), no signed patient consent. The candidates for surgery come and sit under the covered walkway in front of the "Surgical Suite" and wait to see if they will be chosen for surgery that morning.

Dr. Eschtruth has staff meetings each morning at 8:30 to hear reports, complaints, and in general "keep them on the ball." Medicines must be distributed. The pharmacy has only routine medication, and that in small quantities. To permit Africans control of drugs is to invite theft and graft. Only last month the pharmacy was broken into and a quantity of drugs taken. Drugs are precious here and bring a good price on the black market.

Dr. Eschtruth is constantly being visited by some public official, military or gendarme seeking special favors or treatment. It also falls within his province to determine cause of death in a man hit over the head or presumed poisoned by his wife. And there is the emergency that requires immediate attention. All of this takes time.

Continued



FIGURE 1

PATIENTS WAIT placidly for the dispensary to apen. Malaria and internal parasites are the rule rather than the exception.



As an agency of the medical profession, Indiana Blue Shield's policies and procedures are determined by representatives of the Indiana State Medical Association. Indeed, Blue Shield is the one and only medical care prepayment program in which physicians have a directing vote.

BLUE SHIELD

MUTUAL MEDICAL INSURANCE, INC.
110 N. ILLINOIS STREET
INDIANAPOLIS 9, INDIANA

Then you must go back to the generator house to start the diesel, procure and fill with fuel or, if it has been allowed to run out of fuel, bleed the air out of the line. These things you cannot assign to Africans, for soon you would have no generator.

Now you're ready to prepare for surgery. There are two good, light, airy surgery rooms—no screens but not too many flies; of course there is the occasional pig or chicken that meanders in when no one is looking.

The patient puts on a gown and waits, with "fiche" (record) and 400 francs ($8.00) for major operation in hand. Sterilization and equipment in surgery is good. The African Infirmiers in surgery are quite competent considering what little training they have had. The surgeon scrubs, gives the anesthetic (spinal or local in most cases), scrubs some more while the patient is being prepared with Mercurochrome and draped. It takes no longer to do the same operation here than at home. Morbidity negligible, mortality rare. Only once have I seen any complication from the spinal anesthetic—a headache—gone in one week.

There is no problem with early ambulation out here. I went to the ward to see my vaginal hysterectomy the day after surgery. She was nowhere to be found—not even in the rear of the hospital, under the mango trees with the bulk of the other patients. Eventually I discovered she had to "passer du selle" (B.M.)—just where, I never learned. Unless they are in shock, they will be up and about the next day.

There was one man with an ordinary hernia repair. He was better educated, had been in the city, wore shoes, clothes instead of rags, had a toothbrush instead of a frayed stick. Instead of the placid tranquility of the village bush man, he came to surgery wide-eyed, trembling, apprehensive, took the spinal anesthetic poorly and stayed in bed for three day after surgery. Rarely do we see duodenal ulcers or hypertension in the man from the bush village, but commonly in the pastor-teacher, the professional politician, the African military or mercenary officers.

Most of the surgery here falls in the province of general surgery; hernias of all kinds and complications thereof, thyroids, fibroids, pelvic inflammatory disease, hydrocele, traumatic surgery and benign neoplasms. Here, cancers are seen too late for surgery and there is no radiotherapy available.

Dr. Pickett, internist, acquitted himself admirably in his surgical care given to a strangulated hernia during Dr. Eschtruth's absence.

We will repair a cleft lip tomorrow despite the fact neither of us has even done one. But if we don't help this 10-year-old boy, it is certain no one else will. Endotracheal ether anesthesia will be used—a "first" for this hospital.

The majority of patients accept their care and treatment as a matter of course, but occasionally their gratitude is unbounded. This afternoon I was flabbergasted and nonplussed, when, as I was making rounds, two African women with Kaolin or a white powder sprinkled in their hair, smudged on face, arms, neck and torso, jabbering

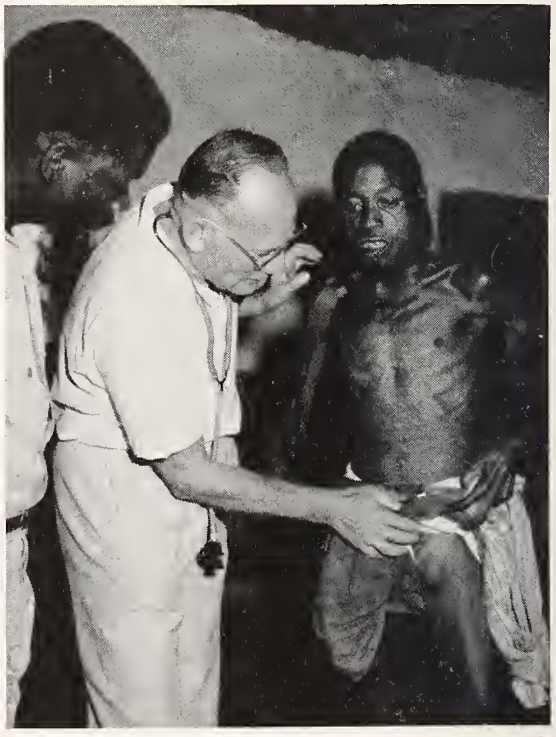


FIGURE 2

A PATIENT with malignant lymphama being examined by Dr. H. L. Sedam. A biapsy was nat perfarmed in this case due ta lack af facilities. Unfortunately most cancer patients are seen taa late to benefit fram surgery.

Urundi and yodeling (an expression of great joy or pleasure) came bowing and scraping towards me! They not only bowed in knee-chest position, like good Mohammedans to Allah, but actually slid one side of the face and then the other along the concrete floor in front of me. The Infirmier who was with me told me this was their greatest expression of affection and thanks —making me the Biggest Chief in their eyes. Their husband, admitted in shock with a three-day-old strangulated hernia a week before, was now well and able to go home.

Kapanga offers many things to the doctor who would give a part of himself in service to these people here:

An opportunity to be still and hear the voice of God, of eternity.

A break in the pace that too often becomes a routine treadmill.

A broader vision of the peoples of this world and their needs.

An awareness of the brotherhood of all mankind.

The spiritual uplift of living among dedicated missionaries.

An appreciation of home and the U.S.A.

The motto over the fireplace in the White Cross Building, Indianapolis Methodist Hospital has meant more to me since I have been in Katanga: "The luxury of doing good surpasseth every other personal enjoyment."

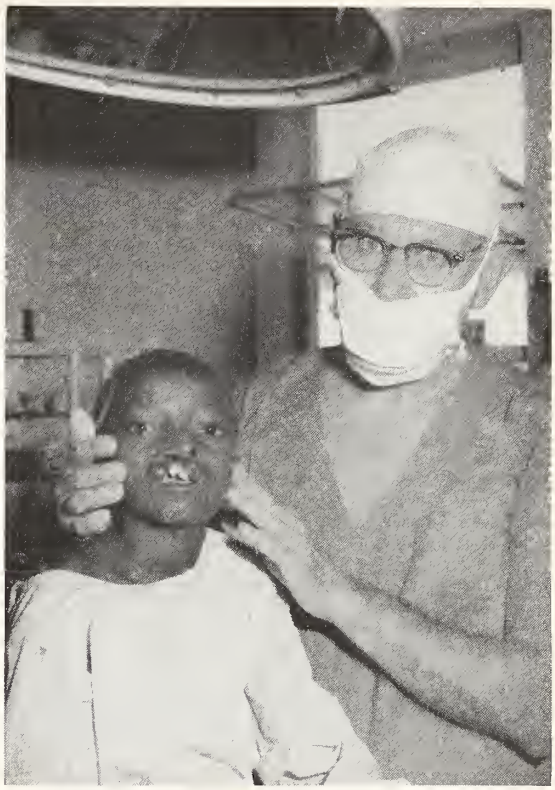


FIGURE 3

THIS CLEFT LIP present in a 10-year-ald patient was successfully repaired by the authar. Endotracheal anesthesia administered by Dr. Eschtruth was used far the first time at the haspital for this aperatian.

Sincerely,
Herbert L. Sedam, M.D.

Down Strange Byways Of Our Medical Past

W. D. SNIVELY, JR., M.D.
Evansville

FAMOUS PERSONAGES have expressed strikingly different opinions of the value of history. Napoleon proclaimed, "History is a fable agreed upon." Henry Ford snorted, "History is bunk." But Francis Bacon asserted, "Histories make men wise . . .," while Thucydides believed, "History is philosophy learned from examples."

Whatever the value of these opinions, the study of history in school is all too frequently a deadly cataloging of names, dates, and events; the history of medicine can be just as dull. Yet, approached objectively with a conscientious effort to examine events as they really occurred, medical history sparkles with the tang of unsolved mysteries, with love and hate, with beauty and horror, with life and death. By exploring some of its obscure byways, we not only view fascinating scenes from the past, but we gain an insight into the broad causation of disease—insight which can be won in no other way.

Let us examine, then, five infamous plagues; and let's ask for each one of them, "What really caused it?" Our historical excursion will, of course, provide us with some of the *obvious* answers; but it will also furnish us with some of the startling *non-obvious* causative factors, without which the plague could never have existed. Be it noted that I am using the term "plague" in the general sense of any physical, psychologic, or sociologic disorder that causes misery and death to numbers of people.

But first, in prologue, let's review a little of the ancient background of Western medicine:

The origins of the art of healing lose themselves in the mists of pre-history. The first practitioner of the healing art was probably the priest, or shaman, of paleolithic times. He employed amulets, fetishes, and grotesque acts to drive away the demon of disease. He was a sort of primitive combination of priest and physician, the priest-physician of the ancient Egyptians, the medicine man of the American Indians, the apostle St. Luke, the clerics of the Middle Ages who were also physicians, Cotton Mather of American colonial times, and today, the faith healer.

Biblical Knowledge of Disease

Hippocrates, in about 500 B.C., made the first attempt to separate medicine from religion. He established the scientific basis on which modern medicine is built:

- There is no authority except facts.
- Facts are obtained by accurate observation.
- Deductions are to be made only from facts.

Hippocrates believed that man could discover nature's laws by careful observation and deductive reasoning. He recognized for the first time that disease is not one state, but many states. He originated the Hippocratic Oath. He introduced diet therapy to the extent that Plato complained that the good doctor and his ilk "had converted life to a living death."

Hippocrates had no corner on ancient medical wisdom, however, for the writers of the Bible revealed a startling knowledge of medicine. In Leviticus 17 we read, "For the life of all flesh is in the blood." The word "blood" or related words occurs more than 400 times in the Bible. In Ecclesiastes 12 there is a classic description of the physiologic changes that accompany aging

—changes in vision, hearing, nervous and muscular coordination, excretory function and psychology. That marvelous passage begins "Remember thy Creator in the days of thy youth, before the time of affliction. . . ."

The means of controlling a contagious skin disease is covered in great detail in Leviticus 13 and 14. In the New Testament many diseases are described accurately. How can one improve the account of epilepsy in St. Luke 12, "Master, I pray Thee to look at my son, for he is my only child and behold a spirit seizes him and he suddenly cries out and it throws him down and convulses him so that he foams and bruising him sorely it scarcely leaves him." In St. Luke 13 we read of arthritis of the spine, "And behold there was a woman who for eighteen years had had a sickness caused by a spirit and she was bent over and utterly unable to look upwards." Even the economic aspects of chronic disease, which receive such interest today, were covered in St. Mark 5, "And there was a woman who for twelve years had had a hemorrhage and had suffered much at the hands of many physisians and had spent all that she had and found no benefit but rather grew worse."

The bright promise of Hippocrates did not come to fruition in the centuries that followed him; for shortly after the Christian Era began, Europe entered into the period we know as the Dark Ages, when disease was regarded as punishment for sin. We have a relic today of this dreadful concept when we refer to the effects of hurricanes, volcanoes and floods as "acts of God."

Boccaccio, referring to a pestilence, said, "Such was the cruelty of heaven and perhaps of men that upwards of 100,000 souls perished in the city." Martin Luther proclaimed, "Pestilences, fever, and other severe diseases are naught else than the devil's work." Emperor Maximilian in 1495 stated, "Syphilis is an affliction from God for the sins of men." The belief that seriously ill people were only getting their just deserts played a key role in the perpetuation of the first of the five plagues, leprosy.

The Lonely Trail of the Leper

Leprosy, properly referred to today as "Hansen's Disease," has long been a subject of controversy. The controversy begins with the question, "Is the leprosy as recorded in the Bible and as reported during the Middle Ages synonymous with Hansen's disease as we know it today?" Historians have pointed out that it is possible that the term "leper" was used in a social rather than a pathologic sense in many writings.

Others have emphasized the tremendous difficulty of diagnosis in an age when medical knowledge was rudimentary, at best. They point out that what is reported as leprosy might have been scurvy, impetigo, various forms of ringworm, pediculosis, scabies, pellagra, furunculosis, eczema and a host of other skin diseases which must surely have flourished in the filth of the Middle Ages. But the consensus appears to be that Hansen's Disease did indeed wax prevalent during the Middle Ages. Let us accept that consensus while recognizing that much of what is described as leprosy in the old accounts was really not Hansen's Disease at all.

Centuries before the Middle Ages, leprosy was associated with fear and violent loathing; but the Romans, Arabians and Egyptians did not have the inordinate horror of it which developed in the Middle Ages. To begin with, since leprosy was believed to be due to sin, there was little official sympathy for lepers, however kindly they were treated by their own kinfolk. But they were tolerated in their communities until about the 6th Century. After that time, they were increasingly disfranchised, excommunicated from the church and banished from society. A book of rules drawn up for the guidance of lepers in 1066 in England read:

> "Amongst all informities, the disease of leprosy may be considered the most loathsome, and those who are smitten with it ought at all times, and in all places, to bear themselves as more to be despised and as more humble than all other men."

As the centuries passed, the treatment

of lepers became increasingly heartless. Beginning about the 12th Century, the unfortunate leper was as good as dead when the diagnosis of leprosy—correct or incorrect—was pinned on him. His departure from the land of the living was made official by a funeral mass, which he attended in the place usually reserved for the corpse. Following the service, he was banished from society. No question was left in the mind of the leper that he was far inferior to an ordinary pariah. Henry II of England and Philip V of France felt that the church's funeral service was unnecessarily symbolic, so they substituted a simple civil ceremony in which the leper was strapped to a post and set afire. Millions of lepers were thus burned.

The historical record appears to indicate that leprosy did not become prevalent in Europe until about the 6th Century A.D. It remained a major plague until the 14th Century, when it faded rapidly from the European scene. The spread of leprosy throughout Europe and its relatively abrupt disappearance has long puzzled scholars. All sorts of theories have been offered; none are convincing. Hansen's Disease as we know it today exists in endemic proportions only in hot, humid regions. The question arises, "Could the climate of Europe from the 6th Century to the 15th Century have had something to do with the incidence of leprosy during that period?"

In his work, "Climatic Variations in Historic and Prehistoric Times" published in 1912, the Swedish oceanographer Pettersson presents scientific, historic and literary evidence of alternating periods of mild and severe climate, each period about 900 years long. The year 550 A.D. (in the 6th Century) was the peak year for a warm period, while the year 1433 A.D. (in the 15th Century) was the peak year for an ensuing rigorous cold period. Note how leprosy, a disease of warm climates, was highly prevalent in Europe during the warm 6th Century, continued prevalent in the warm centuries that followed, and began to disappear with the cooling that culminated in the cold and inclement 14th Century. Could these relationships be more than coincidental?

The proximate cause of leprosy is, of course, a bacillus, the bacillus leprae; and certainly contributing causes are unhygienic living conditions, including overcrowding, filthy personal habits, and lack of sanitation. Certainly the religious attitude toward leprosy, which virtually ruled out anything resembling treatment, was a factor; but perhaps we should add climate to the list of causal factors.

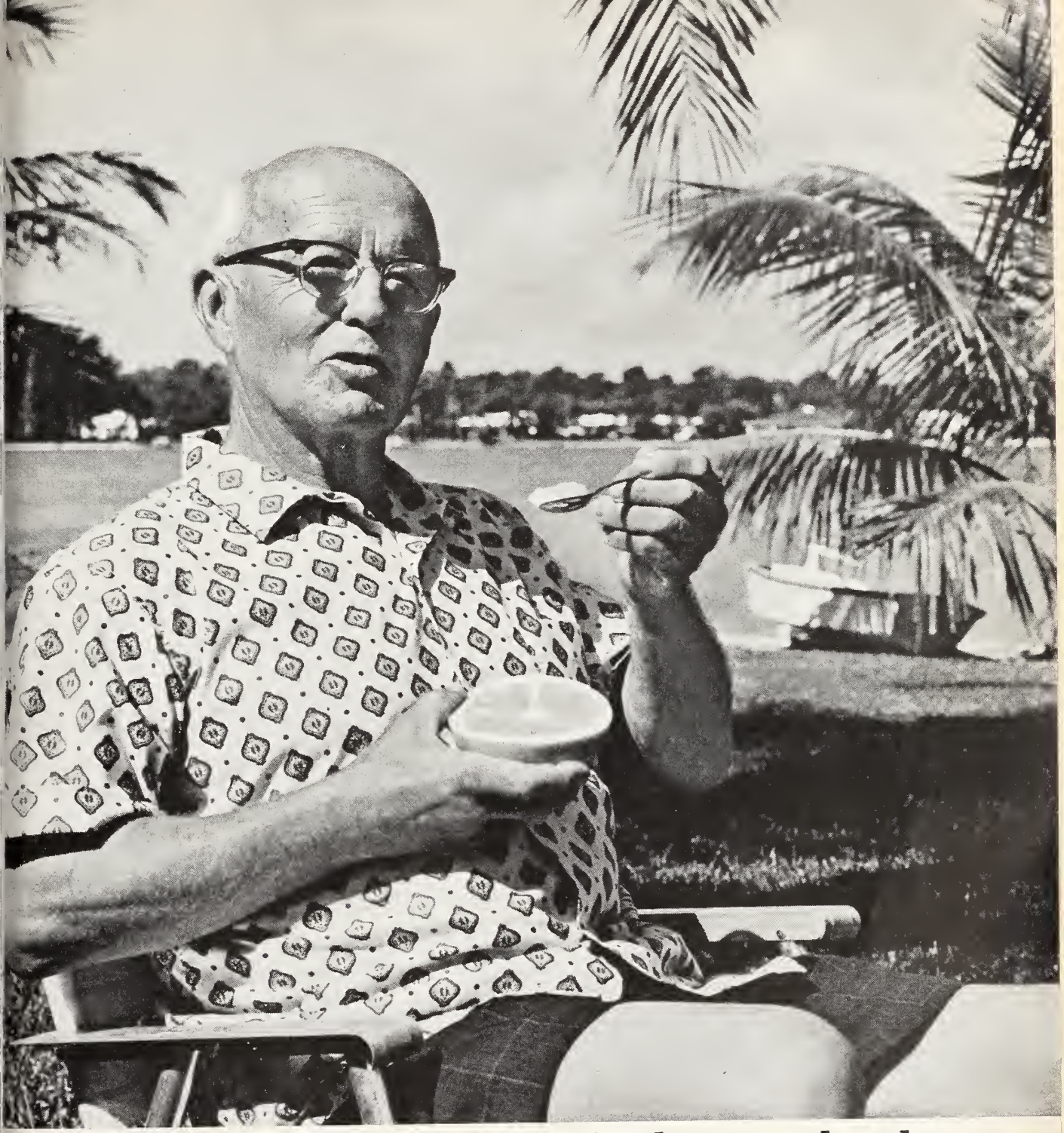
The Dancing Mania

Disease in the Middle Ages enjoyed a grisly heyday. There were the great pox (syphilis), the smallpox, the mysterious sweating sickness and the strangling diphtheria. There were cholera, yellow fever, ague, rickets, pellagra and scurvy. In addition to these, there were most of the ailments that afflict us today, except that they were then a hundred—perhaps a thousand—times more prevalent. Certainly the leader of all of these horsemen of disaster was the Great Plague. It was known as "the black death" and caused by the plague bacillus. It began about the middle of the 14th Century; and in epidemic after epidemic, it devastated Europe to a degree that approached depopulation. Its history is well known and has been covered by many writers. We will pass it by and talk about a strange disorder that arose as the fires of the bubonic plague were flickering.

This disorder, a mental contagion, was "the dancing mania," accurately referred to as "the dance of death." It resulted from an attempt on the part of its victims to escape from an intolerable environment, which included virtual slavery, a perpetual submarginal level of existence, sunrise-to-sunset drudgery, dreadful monotony, a religious climate which was often somber to the point of hopelessness, added to the insecurity of constant wars and threats of wars, and to the ever-present hazard of disease.

"The dance of death" was first reported in Germany in 1374, when groups of individuals in different hamlets formed circles

Continued



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Sea and sun are both in his doctor's orders — so is that grapefruit he's eating with such gusto. Citrus fruit is a wonderful way for this patient or any patient to get his daily quota of vitamin C . . . to enjoy something good to eat, tasty and satisfying but not rich.

Not all patients are so lucky as to have retired to Florida, where they can just reach out to pick citrus fruit off their own orange and grapefruit trees. But any patient anywhere can get the same benefits of the natural vitamin C in Florida oranges, grapefruit, and tangerines . . . thanks to modern methods of processing fresh fruit. Whether it is frozen, canned, or in cartons, 98% of the vitamin C content of the fruit is preserved.

Grapefruit and other citrus fruits filled with vitamin C are valuable in the nutrition of every age group. Among the teen-agers, vitamin C is one of the two nutrients most often low in the diet. Infants, too, need generous amounts of vitamin C; and they will take it readily when it comes to them in the form of delicious orange juice.

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in the village commons and rushed around in a mad snake dance in wild delirium, screaming and foaming with fury. The dance went on for hours, sometimes for days on end. Townspeople, intrigued by the strange performance, would join in the circle and soon be among the mad dancers. The dance would continue until participants dropped dead of exhaustion or were trampled to death by their companions. The rugged souls still left would go on to the next town and start a new dance of death there.

Judging from the large number of paintings, ivory miniatures, frescoes and tapestries, the dancing mania must have been of enormous proportions. It was the probable ancestor of the black bottom, the shim sham, the Charleston, the Lindy hop, the shag, the big apple, the boogie woogie, and the twist, as danced by hep cats, jitterbugs, rug cutters, slick chicks, bopsters, members of the rock and roll clan and twisters.

A medieval account tells us that lively, shrill tunes played on trumpets and fifes excited the dancers; soft, calm harmonies proved efficacious as a cure. In fact, soft music was the sole effective therapy.

The dancing mania provides an interesting example of how human beings confronted by intolerable environmental conditions can actually be afflicted by communal mental disease. It highlights the importance of such factors as politics, wars, sociologic practices and religious beliefs in the state of community health.

As if the ailments mentioned were not portion enough for our long-suffering European ancestors, still another malady was inflicted upon them. And, of all the banes that have beset mankind, few caused more utter misery than Saint Anthony's Fire, a form of poisoning, which killed or crippled millions.

Saint Anthony's Fire

When Sir Walter Scott desired to have one of his characters utter the ultimate curse, he had him declaim:

"Saint Anton fire thee! Wilt thou stand
All day, with bonnet in thy hand
To hear the lady preach?"

Saint Anthony's Fire, appropriately called "Hell's Fire," burned fearsomely from the 9th to the 14th Century and smoldered for hundreds of years after that. Its cause was completely mysterious, its occurrence spotty; and it was more dreaded even than leprosy. In many of its victims, severe internal cramps occurred, followed by a rapid death. In others, perhaps less fortunate, icy chills developed in the arms and legs followed by a burning sensation, limbs withered and frequently became gangrenous. Pregnant women aborted. The victims of Saint Anthony's Fire turned to the church for help. They made pilgrimages to the shrines of Saint Anthony. There, devoted monks cared for them as best they could.

In 1597, medical men at Marburg, Germany, concluded the disease was caused by eating bread made from rye infested with a fungus growth, which produced a chemical called ergot. In 1690, a French physician independently reached the same conclusion, proving the poisonous nature of ergot by animal experimentation. Ergot today, administered in proper doses, is a useful medicine for controlling bleeding.

Yet, Saint Anthony's Fire appeared here and there for 150 more years. The last reported epidemic was in 1888 during a famine in Russia. Thus, for hundreds of years after the cause of Saint Anthony's Fire had been established, the disease raged and crippled and killed, all because of a lack of adequate communication between physicians and the total absence of communal health facilities. Here we have the interesting example of an ailment, physical in its nature and caused by a physical agent, but made possible and perpetuated by a lack of public health programs.

Sadly, the practical contributions of physicians to the welfare of the people of the Middle Ages were small, indeed. Modern day commonsense would have enabled laymen to put a quick end to most of the

Continued

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As Ford and Blanchard have reported,[1] Pabalate-SF has "a pronounced antirheumatic effect in the majority of patients with degenerative joint diseases." It produces "a more uniformly sustained [salicylate blood] level for prolonged analgesia and, therefore, is superior to aspirin in the treatment of chronic rheumatic disorders."

Yet Pabalate-SF is marked by distinctive safety factors: its potassium salts cannot contribute to sodium retention . . . its enteric coating assures gastric tolerance . . . and its clinical record reflects none of the serious reactions frequently precipitated by therapy with corticosteroids or pyrazolone derivatives. **It has no contraindications except personal idiosyncrasy.**

1 Ford, R. A., and Blanchard, K. Journal Lancet 78:185, 1958.

Formula: In each persian-rose enteric-coated tablet: potassium salicylate 0.3 Gm., potassium para-aminobenzoate 0.3 Gm., ascorbic acid 50.0 mg.

Also available:
PABALATE, when sodium salts are permissible.
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devastating plagues that ravaged Europe century after century. Yet, time after time, tiny sparks of wisdom flared up only to be extinguished.

An amazing example is provided us by a statement made by Jean Astruc, physician to Louis XIV of France. Let us listen to him as he pompously reviews the absurd theories advanced for the cause of syphilis:

> "There are some, however, whom I forbear now to spend Time in imputing, such as Augustus Hauptman and Christian Langius, who think that the Venereal Poison is nothing else but a numerous School of little nimble, brisk, invisible living things, of a very prolific Nature, which when once admitted, increase, and multiply in Abundance; which lead frequent Colonies to different Parts of the Body; and inflame, erode, and exulcerate the Parts they fix on; . . . But as these are mere visionary Imaginations, unsupported by any Authority, they do not require any Argument to invalidate them . . . if it was once admitted, that the Venereal Disease could be produc'd by invisible living things swimming in the Blood, one might with equal Reason allege the same Thing . . . of all Distempers whatsoever; and thus the whole Theory of Medicine would fall to the Ground, as nothing could be said to prove the Venereal Disease depending upon little living things which might not be urged to prove that all other Diseases were derived from the like little things though of a different Species, than which nothing can be more absurd."

And now let's cross the Atlantic to new lands where we will look in on two more infamous plagues, one mental and one physical.

The Salem Hysteria

From the innermost recesses of his Puritan heart and soul, the Reverend Samuel Parris, respected Puritan minister of Salem, Massachusetts, hated sin. He hated all the evil angels, the devil (that venomous pilot of hell!) and, above all, he hated she-witches and the damned and detestable art of witchcraft. Fate was indeed unkind to Samuel, for when the terrible stench of witchcraft first wafted into his little secluded backwoods parish of Salem Village, his own daughter, Elizabeth, and his niece, Abigail, were the first to be bewitched.

You are all familiar with the unhappy story of how 250 persons, mostly aged, were arrested; how 13 women and 6 men, many of them between 60 and 80 years of age, were hanged; and, how one old man was crushed to death between stones for refusing to admit his guilt. Two dogs were even executed for being witches.

After a year, the absurdity of the whole affair became apparent to all. The Governor dissolved the special court and released all the suspects still in jail. But, while some of the unfortunate senior citizens were still dangling by their necks on Gallows Hill, the more conscientious of the bewildered townspeople suddenly realized that something had gone fearfully amiss and they began to cry piteously to Heaven for forgiveness. Soon after that, historians began to offer explanations—or apologies—for the horrible tragedy. Certainly this black page of American history needs explanation; but the explanations are nearly as numerous as the historians.

The witchcraft trials and the condemnations which followed them were all based on the behavior and testimony of a group of girls from 9 to 17 years of age. The accusations of these children, their convulsions and the physical signs which they manifested whenever exposed to an accused witch resulted in the convictions.

Most authors believed that these girls were exceedingly bad, dishonest children, guilty of wicked perjury and wilful malice. As one writer said, "The coldest and most malignant brats ever spawned." Another referred to them as "The Puritan song and dance girls—eight of the nastiest brats on record."

Certainly the children seemed eager to testify against any poor old crone brought

Continued

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EFFECTIVE ANTIDIARRHEAL

FORMULA: *Each 15 cc. (tablespoon) contains:*

Sulfaguanidine U.S.P.... 2 Gm.
Pectin N.F..... 225 mg.
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Opium tincture U.S.P. ...0.08 cc.
(equivalent to 2 cc. paregoric)

DOSAGE: **Adults:** Initially 1 or 2 tablespoons from four to six times daily, or 1 or 2 teaspoons after each loose bowel movement; reduce dosage as diarrhea subsides.

Children: ½ teaspoon (=2.5 cc.) per 15 lb. of body weight every four hours day and night until stools are reduced to five daily, then every eight hours for three days.

SUPPLIED: *Bottles of 16 fl. oz. (raspberry flavor, pink color)*
Exempt Narcotic. Available on Prescription Only.

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into court. They told obvious lies and fantastic atrocity stories. They swore they had been pinched, choked and bitten by the accused, and they showed marks of the bites and pinches on their arms and bodies. They screamed hideously and claimed that pins and knives were being stuck into them, and they had the wounds to prove it. They became blind or dumb or paralyzed, as attested to by the doctors of the day. The quite real physical signs manifested by the children were, of course, hysterical reactions.

While we don't understand their mechanism even today, we do recognize that they can occur; and we don't, of course, attribute them to supernatural influences. But there is scant reason to doubt that these strange phenomena must have overwhelmed the superstitious and ignorant people of that day. If the human mind does not have an explanation for a given event, then it invents one. Witchcraft undoubtedly impressed our New England ancestors as a logical and reasonable explanation for the hysterical manifestations of the Salem episode. How many of us today in the same circumstances would not have arrived at a similar conclusion?

A careful review of the whole dismal episode by Dr. Ernest Caulfield, a Connecticut pediatrician, offers convincing evidence that these children were, indeed, possessed, not by demons but rather by a real mental disease—hysteria. Their strange actions and symptoms, even the bites, bruises and wounds they displayed on their bodies, all fit in perfectly with the disease hysteria as we know it today.

A hasty look at the religious practices of the day shows that these children had reason enough to develop hysteria. They lived in a state of constant, gnawing fear, not just of death, but of *eternal damnation.* Children were taken on walks to cemeteries to see where smaller children had been buried; they were told that a child is never too little to die; never too young to go to hell. The terrors of the damned were depicted to them in terms that would send shivers up the spine of the most confirmed atheist.

It was by no means strange that the first cases of hysteria in Salem Village occurred in the home of the leading red-hot devil chaser, the Reverend Samuel Parris, himself. His daughter and niece, like other Salem children, had ample reason to become hysterical when repeatedly told that the monstrous, invisible, venomous, hissing and sooty devil was right in their neighborhood waiting to devour them. The Parris children and the other children involved in the Salem witchcraft trials were not imposters or frauds, nor were they cold-blooded, malignant brats. They were sick children in the worst sort of mental distress, living in fear for their lives and for the welfare of their immortal souls. Their hysteria was only the outward manifestation of feeble attempts to escape from their insecure, cruel, depressive Salem Village world—a world thoroughly saturated with the pungent fumes of burning brimstone.

There is a moral to this tale—neglect and failure to provide the proper mental hygiene for the young can have disastrous and far-reaching consequences upon the entire society in which they live—a lesson which we in this modern age would do well to note. For juvenile delinquency is just as much a form of mental disease as hysteria, and it is just as preventable.

Milk Sickness

After this little vignette of a mental ailment, let's take a look at one that is purely physical. As many a pioneer in early Mid-America had reason to say, "We war perplext by a disease cald milk sick."

In the rugged country that lies south of Smoky Mountain National Park, a cluster of lofty peaks forms a remote and lovely skyland known as the Snowbird Mountains. None of the peaks of this range excel in beauty one called "Milk Sick," which stands proud and tall amidst its companion summits. The tale of its naming is lost in the forgotten lore of pioneer days, but this we do know—the disease for which the peak was named was as savage and pitiless as any of the Indian warriors that ravaged the pioneer settlements.

"Milk Sick" was the name applied by pioneers to an ailment also called "staggers," "tires," "swamp sickness" and "trembles," that afflicted man and beast alike. In 1815 it caused half the deaths in Dubois County, Indiana. At Pigeon Creek, Indiana, in the autumn of 1818, it killed Nancy Hanks Lincoln (Abraham Lincoln's mother), as well as his great aunt and great uncle. In 1839 it killed 50 of the 500 people living in Danville, Indiana; and in more than one site in Indiana, an open field is all that remains of a pioneer village that was moved because of the prevalence of milk sickness.

It was clear from the start that milk sickness was caused by drinking poisoned milk or cream. Just how the milk or cream became poisoned was by no means clear. The symptoms of milk sickness included a foul breath, dizziness, muscular pains, vomiting, intense thirst, rapid pulse, convulsions and unconsciousness. Its victims took years to get well, if they did not succumb. Many different forms of treatment were tried. The only one that appeared to succeed was the use of brandy and honey. This particular remedy, variants of which have been employed to treat almost every disease in the book, was surprisingly effective.

In 1839, John Rowe, of Fayette County, Ohio, presented striking evidence that milk sickness was caused by drinking the milk of cows that had eaten white snakeroot. Nevertheless, confusion and uncertainty reigned until 1917 when it was scientifically established that Farmer Rowe was correct. It appeared that the disease only developed in persons who had drunk large quantities of milk from cows heavily poisoned. Cows became poisoned only in dry years when burned out pastures forced them into the woods where the snakeroot grew. It was discovered that the poison was a substance called "tremetol," from Latin "to tremble" and that it was a form of alcohol. It was also found that boiling destroys the poison while pasteurization does not. With the discovery of the cause, the reason for the favorable effect of alcohol became known: Tremetol is said to combine with beverage alcohol to form a nonpoisonous compound. So the best modern treatment consists of administration of alcohol plus intravenous feedings of carbohydrate, essentially the brandy and honey treatment of our forbearers.

In milk sickness we have an example of a disease which physicians failed to control because there was no adequate communication between them and because there was no genuine program of organized preventive medicine. Only modern agricultural practices, which provided adequate pasturage and kept cattle out of the woods, wiped out the milk sick. Notice it was not because of a campaign on the part of medical men or health officials that the milk sick was wiped out; rather, deliverance from this plague stemmed directly from the modernization of agricultural practices resulting from the inroads of civilization.

In Sum

We have tramped down some dark paths and had some revealing glimpses at the past. What lessons can be learned from our off-beat excursion into medical history? At least one concept stands out clearly: While diseases are caused primarily by such agents as bacteria, viruses, toxins and emotions, environmental influences are frequently of immense significance. These influences, as we have seen, include religious and moral concepts, social conditions, adequacy of communication between health workers, physical and mental hygiene, governmental facilities, even weather. Only if we possess and utilize knowledge of these influences can we successfully employ preventive and curative medicine to eradicate disease. ◄

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1. Stevenson, L.E.: M. Ann. District of Columbia *30*:409 (July) 1961.



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Recommended Dosage: One 'Eskatrol' *Spansule* capsule daily, taken in the morning.

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Cautions: Clinical experience has demonstrated that 'Eskatrol' (containing the phenothiazine derivative, prochlorperazine) has a wide margin of safety and that there is little likelihood of blood or liver toxicity or neuromuscular reactions (extrapyramidal symptoms). The physician should be aware, however, of their possible occurrence.

'Eskatrol' *Spansule* capsules should be used with caution in the presence of severe hypertension, advanced cardiovascular disease, or extreme excitability.

Prescribing information adopted Jan. 1961

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Medicine At Law

DECISIONS AND OPINIONS

Highlights of recent court actions pertaining to health and medicine from *The Citation* prepared by the Law Division of AMA.

Doctor's License Revoked for False Bills and Reports—An order revoking the license of a New York doctor for issuing false medical bills and reports to enhance insurance claims was confirmed by a reviewing court. It held that there was sufficient evidence to support the findings against the doctor.

Evidence showed that two separate and different reports were signed by the doctor and that these were used to obtain two separate settlements from insurance companies, although the patient had been in only one accident. Although the doctor claimed that he relied on the lawyer because he was too busy to read the report, the Board of Regents did not have to believe him, the court said. There were other reports on the doctor's stationery, but not signed by him.

In some instances his signature was forged. The doctor admitted that he had given stationery to the lawyer for typing of diagnoses in some cases and a photostatic copy of a forged report was given to the doctor and filed without comment. The court ruled that the board did not have to believe the doctor's explanation that the lawyer might have had the stationery printed and that his procedures were extremely careless. The board also did not have to believe that charges for x-rays which the doctor did not take were included in billing because patients told him that another doctor had charged for x-rays.

Iserson v. Board of Regents of the University of the State of New York, 230 N.Y.S. 2d 286 (N.Y., July 19, 1962).

Death from Cancer Hastened by Accidental Injury—A Workmen's Compensation award for the death of an employee from cancer was affirmed by a reviewing court in New Jersey. The court held that expert medical testimony would permit a finding that the death from cancer was hastened by an accidental injury suffered in the course of employment.

The employee hurt his back while lifting a roll of dress material weighing between 450 and 550 pounds. He was eventually hospitalized and it was discovered that he was suffering from a pre-existing adenocarcinoma with metastatic lesions in his back. One of the doctors who had treated the patient and another doctor who had familiarized himself with all of the significant findings in his medical history testified that the back injury probably aggravated and hastened the spread of the metastatic lesion in the patient's back. Four other doctors testified that they did not believe that the back injury had anything to do with the origin or aggravation of the cancer. The court gave greater weight to the testimony of the treating doctor with respect to the cause and effect relationship. It held that the burden of proving that it was hastened by the work injury had been satisfied.

Celeste v. Progressive Silk Finishing Co., 178 A. 2d 74 (N.J., Feb. 1, 1962).

Hospital not Negligent in Bedrail Case—A judgment against a hospital in favor of a patient who fell from bed in the absence of side rails was reversed on appeal. An

Continued

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Children from 6 months to 1 year, 1/4 teaspoon; 1 to 3 years, 1/2 to 1 teaspoon; 3 to 6 years, 1 to 2 teaspoons; 6 to 12 years, 2 teaspoons. Every four to six hours as needed.

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intermediate appellate court in New York held that the evidence would not permit a finding of negligence on the part of the hospital.

Evidence showed that the patient's attending physician had given detailed instructions for patient care, but did not order bedrails. Indeed, he informed nurses that the patient was to have "bathroom privileges." The patient was admitted in the morning of one day and the fall occurred at 6:00 p.m. on the next day. Since the case had been tried without a jury, the appellate court granted a judgment of dismissal, which the trial court should have granted.

Guidetti v. Columbus Hospital, 229 N.Y.S. 2d 865 (N.Y., July 3, 1962).

Nursing Home May Be Liable for Drunken Assault by One Inmate on Another—A nursing home for the aged has a duty to exercise reasonable care for its inmates. This includes protection against an assault by another inmate who is known to be frequently intoxicated and argumentative and who frequently requires discipline.

A 73-year-old man claimed that he fell when struck by another inmate who was intoxicated. Surgery was required and he was thereafter confined to bed or a wheel chair most of the time. Testimony showed that the alleged assailant was drunk four or five times a month and that, when he was drunk, he was argumentative and wanted to fight. A jury awarded a verdict of $18,500 against the nursing home.

An Illinois court of appeals held that the evidence was sufficient to permit the jury to find that the nursing home was negligent in not segregating the alleged assailant or removing him from the home, if it could not prevent his intoxication. However, the court ordered a new trial on the basis of newly discovered evidence. The injured inmate had denied that he had been convicted of a Narcotics Act violation. Evidence of such a conviction 25 years earlier was later discovered. This evidence was admissible solely for the purpose of testing his credibility as a witness.

Bezark v. Kostner Manor, Inc., 172 N.E. 2d 424 (Ill., Feb. 15, 1961). ◄

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GRADUATE SCHOOL OF MEDICINE

CONTINUING EDUCATION COURSES
STARTING DATES — 1962-1963

Anesthesia-Inhalation, Endotracheal, Regional—by appointment
Surgical Technic, Two Weeks, February 18
Surgery of Colon and Rectum, One Week, March 4
Vaginal Approach to Pelvic Surgery, One Week, December 17, January 28, March 25
Gynecology, Office and Operative, Two Weeks, April 1
Obstetrics, General and Surgical, Two Weeks, March 11
Proctoscopy and Sigmoidoscopy, One Week, December 17, January 28
Varicose Veins, One Week, December 17, January 28
General Surgery, One Week, February 25
Board of Surgery Review, Part II, Two Weeks, March 4
Basic Internal Medicine, Two Weeks, March 4
Management of Common Fractures and Dislocations, One Week, December 3, February 25
Board of Internal Medicine Review, Part II, One Week, April 8
Gallbladder Surgery, Three Days, March 11
Surgery of Hernia, Three Days, March 14
Clinical Courses in Fractures, Dermatology, Pediatrics, Radiology, by appointment
Electrocardiography, One Week, March 18
Basic Principles in General Surgery, Two Weeks, March 18

Information concerning numerous other continuation courses available upon request.

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REPORTS FROM THE U. S. FOOD AND DRUG ADMINISTRATION

● A fake diagnostic device has been ruled out of order and is being seized and eliminated as fast as various examples of it can be located. The fake is so bad that even the Chiropractic Association is against it. Over 5,000 of the machines have been sold, some for as much as $875. Name: Micro-Dynameter. It is now illegal in interstate shipment.

● As a result of the outcome of a recent fruit fly case, FDA has cautioned growers and packers to seek competent advice about control measures for drosophila flies. Almost four tons of cherries and canned tomatoes were seized because, in addition to other faults, the products contained drosophila eggs and maggots. Sterile, no doubt, and not injurious to health if eaten, but contrary to the standards which declare foods so contaminated to be unfit.

● Clinical thermometers were seized in the possession of the New Jersey hospital equipment firm because they were found to give inaccurate readings. FDA pointed out that clinical thermometers are regarded as precision instruments and an inaccurate one might lead to serious trouble. The thermometers had been shipped by the Puritee Thermometer Corporation. (No wonder the corporation didn't live up to the standard implied by its name, it can't even spell it).

● Floyd L. Rice, self-styled "doctor," was the proprietor, for a time, of the Rice Clinic of Madill, Oklahoma. He was recently fined and sentenced to jail for the illegal and indiscriminate sales of barbiturates, amphetamines and antibiotics. FDA inspectors visited the "clinic" and upon a verbal description of symptoms were able to purchase large quantities of prescription drugs from Rice. Only occasionally did Rice perform even as much as a simple physical examination.

● A New Jersey drug importer imported from Italy a quantity of hydrochlorothiazide, labeled as "Procaine Hydrochloride" and shipped the drug to a Pennsylvania firm after removing the labels. The Customs Bureau seized the shipment as being falsely invoiced. It is thought that it was imported under a false label since procaine is not a new drug, is less expensive and is not apt to arouse suspicion when imported. Object of the importation was probably to provide material for the counterfeiting of Hydrodiuril.

● Some 12,000 amphetamine tablets were seized in the possession of a doctor of medicine in Pennsylvania on charges of illegal use. The 12,000 tablets were obtained after an inspector had purchased 10,000 tablets from the doctor. FDA claimed that the quantity of the drug in possession of the doctor made it unlikely that the tablets were destined for use in the private practice of medicine.

● The Electronic Medical Foundation of San Francisco is a lineal descendant of the "college" over which the illustrious and famous "Dr. Abrams" presided at one time. Court orders have been issued in the past prohibiting distribution of fake diagnostic devices. Recently convictions have been announced against persons ignoring the court orders. During the trial it was reported

that blood submitted by an amputee resulted in a machine "diagnosis" of arthritis of the right ankle—the same foot that had been missing for years. In another interesting case the blood from a rooster provided the "diagnosis" of sinus infection and dental caries.

Indiana Physicians Named Fellows Of the American College of Surgeons

The American College of Surgeons conducted its 48th Clinical Congress at Atlantic City recently and inducted a large class of new fellows. Those from Indiana were Drs. James D. Finfrock, Elkhart; Robert D. Boone, Thomas C. Burger and Raymond H. Burnikel, Evansville; John W. Bossard and Joe G. Jontz, Fort Wayne; Paul E. Doermann, Huntington; Richard A. Brickley, Austin L. Gardner, Raleigh E. Lingeman, James M. McIntyre and George H. Rawls, Indianapolis, and Robert L. Michael, Kokomo.

Information on Drug Safety Leaflet Available to Physicians

A leaflet on the subject of drug safety, suitable for doctors' waiting rooms, has been published as a public service by the Pharmaceutical Manufacturers Association. It is designed to overcome public misconceptions which have arisen recently and is written in easy to understand language. Quantities of the leaflet may be obtained without cost for distribution in doctors' offices by writing the Association at 1411 K Street, N. W., Washington 5, D. C.

Dr. Hugh Hussey Appointed Director of AMA Division

Dr. Hugh Hussey, chairman of the AMA Board of Trustees and dean of Georgetown University School of Medicine, has accepted appointment as director of the AMA Division of Scientific Activities. The division includes the departments of Foods and Nutrition, Drugs, Medical Physics and Rehabilitation, Medical Education and Hospitals, Nursing, Scientific Assembly and Advertising Evaluation. Dr. Hussey will resign his trusteeship later this year and assume his new duties in 1963 whenever he can be relieved of his deanship.

1963 SAMA Educational Program To Have Medical Communications Awards

Awards in medical communications will be a part of the educational program of the Student American Medical Association in 1963. Eaton Laboratories will give cash prizes and trophies in three categories—photomicrography, medical photography and medical illustration. Mead Johnson will award cash prizes and plaques to ten writers of the best scientific articles. The customary awards will also be given for the top three scientific exhibits by students and also by interns or residents. The award program will be a part of the SAMA annual convention in Chicago next May 1 to 4. The top winner in the scientific article contest and also in the scientific exhibit contest will win expense paid trips to the AMA Scientific Assembly.

Dr. Pilcher to Head St. Vincent's Staff

Dr. Jack E. Pilcher has been elected president of the medical staff of St. Vincent's Hospital.

Other new officers are Dr. Robert J. Healey, vice-president; and Dr. Charles V. Van Tassel Jr., secretary-treasurer.

"Friendly Atoms in Industry" Film Available From AEC

The Atomic Energy Commission has made available for free-loan or purchase a new, popular level, 28½-minute color motion picture, "Opportunity Unlimited: Friendly Atoms in Industry," surveying the widespread use of radioisotopes by industry to make better products more efficiently and with an impressive record of safety.

The 16mm film for non-technical audiences, which is narrated by news commentator John Daly, was produced for the Commission by Army Pictorial Center, New York, under the technical direction of the Commission's Division of Isotopes Development. The film may be obtained by

writing Howard C. Baldwin, U. S. Atomic Energy Commission, 9800 S. Cass Ave., Argonne, Ill.

W. B. Saunders Company Announces $15,000 Writing Fellowship Grant

The W. B. Saunders Company, medical and scientific publishers, are making available $15,000 for an unusual medical writing award in 1963.

The purpose of this grant is to provide financially for a year's leave of absence for a distinguished investigator who:

1. Has been doing fruitful and significantly important biomedical laboratory research over the past several years.
2. Would like to have time for thought and for preparation of his work in monographic form.

Applications for the Saunders writing award may be submitted in an informal style to the chairman of the selection committee. The investigator should indicate briefly the character of his research and where it has been pursued, along with a short resume of his scientific background and a bibliography of his important papers.

Areas of research in the medical sciences and clinical medicine which are acceptable for award consideration are extremely broad with a preference for those which could be translated into clinical usefulness within the foreseeable future.

Applications should be submitted between January 1, 1963 and May 1, 1963 directly to Dr. Robert F. Loeb, care of W. B. Saunders Company, West Washington Square, Philadelphia 5, Pa. A decision on the award-winner will be reached by August 1, 1963, and the recipient notified. Formal presentation will be made at an award dinner in October, 1963.

Dr. Page Spray, Elkhart, has been elected a vice-president of the Interstate Postgraduate Medical Assembly. He was elected at a Chicago meeting in early October. ◄



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FUTURE MEETINGS, SEMINARS, COURSES

Diabetes Clinical Conference Set for January 16-18 in Boston

"Diabetes in Review: Clinical Conference, 1963," the 11th postgraduate course of the American Diabetes Association, will be held January 16, 17 and 18 at the Statler Hilton Hotel in Boston. The American Academy of General Practice will give 18 hours of Category II credit for the course. Registration fee is $40 for members, $75 for non-members. Complete information may be obtained by writing the association at 1 E. 45th St., New York 17.

Occupational Medicine Exam Will Be Given in Washington

An examination for Certification in Occupational Medicine will be held March 16, 17 and 18, 1963. The examination is scheduled at the Sheraton-Park Hotel in Washington, D. C., preceding the annual meeting of the Industrial Medical Association which will be held at the same hotel March 18-21. Applications for certification should be sent to Tom F. Whayne, M.D., secretary-treasurer, American Board of Preventive Medicine, 4219 Chester Ave., Philadelphia 4, Pa.

"Surgery of the Head and Neck" Course Offered by Cleveland Clinic

The Cleveland Clinic Educational Foundation is offering a postgraduate course in "Surgery of the Head and Neck" January 9 and 10, 1963, at Cleveland.

Acceptances will be made in the order of application. Interns and residents will be admitted without charge. Registration fee to others is $30.00. Anyone interested should write to the Education Secretary, Cleveland Clinic Educational Foundation, 2020 E. 93rd St., Cleveland 6. ◄

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Deaths

William E. Amy, M.D.

Dr. William E. Amy, ISMA Senior Member and Harrison-Crawford county delegate for many, many years, died Oct. 17 at the Harrison County Hospital in Corydon.

Dr. Amy was president of the Eureka Telephone Company at Corydon and a member of the Harrison-Crawford Medical Society. The general practitioner was a native of Harrison County and for 25 years was health officer for Floyd and Harrison counties.

Dr. Amy began his practice at Bicknell after being graduated from the old Kentucky School of Medicine at Louisville in 1903. He went to Corydon in 1910.

Dr. Amy served continuously for 29 years on the Reference Committee on Credentials and was made a member of the ISMA 50-Year-Club in 1953.

Raymond J. Berghoff, M.D.

Dr. Raymond J. Berghoff, a lifelong resident of Fort Wayne, died there Oct. 4 in St. Joseph's Hospital.

Dr. Berghoff, 69, received his M.D. degree from Marquette University, Milwaukee, in 1916. He was Allen county coroner from 1932 until 1936 and also served two terms as deputy county coroner.

A member of the St. Joseph's hospital staff, Dr. Berghoff also was a courtesy staff member of the Lutheran and Parkview Memorial hospitals. He was a member of the Allen County Medical Society.

Charles H. Cronick, M.D.

Dr. Charles H. Cronick, 50, director of the State Division on Alcoholism, was found dead in his home Oct. 6.

Dr. Cronick, who had been ill several months, apparently died of a heart attack. A native of Youngstown, Ohio, Dr. Cronick had been with the division as its director since August of last year. He formerly headed a similar program in Rhode Island and at one time was a teaching fellow at I. U. School of Medicine.

Dr. Cronick was graduated from medical school at the University of Pennsylvania in 1936. His internship was served in Youngstown and his psychiatry residence at Cleveland City Hospital. He was a member of the Marion County Medical Society.

Charles F. Diefendorf, M.D.

Dr. Charles F. Diefendorf, 87, a practicing physician in Evansville for 57 years, passed away Sept. 20 after a lingering illness.

Dr. Diefendorf was graduated from Barnes Medical College of St. Louis in 1899 and practiced medicine in Evansville until 1957. He served as county coroner in 1926 and 1927 and as county health director from 1930 to 1934. He was a member of the ISMA 50-Year-Club and the Vanderburgh County Medical Society.

L. Stanford McKeeman, M.D.

Dr. L. Stanford McKeeman, Fort Wayne physician and surgeon, died Oct. 7 in St. Joseph's Hospital.

Dr. McKeeman, 63, was formerly president of the St. Joseph's Hospital staff and had his practice in Fort Wayne for 36 years. A 1924 graduate of the I. U. School of Medicine, Dr. McKeeman went to Fort Wayne to practice after a year's internship in Indianapolis General Hospital. He was an industrial surgeon and member of the Allen County Medical Society.

Frederick G. McMillan, M.D.

Dr. Frederick G. McMillan, 82, passed away Oct. 12 in an Indianapolis nursing home.

Dr. McMillan, born at Medora, Ind., had lived in Indianapolis 60 years. He was graduated from Valparaiso University and the Illinois University Medical College. Dr. McMillan was a member of the ISMA 50-Year-Club and the Marion County Medical Society. ◄

County News

Allen

Ninety-eight members and guests of the Allen County Medical Society met Oct. 2 in Fort Wayne. Dr. Morton Hamburger spoke on "The New Penicillins and Other Developments in Antimicrobial Chemotherapy."

Carroll

Dr. T. Neal Petry, Delphi, reported on actions of the ISMA House of Delegates at the 1962 convention at the Oct. 17 meeting of the Carroll County Medical Society. Field Secretary Howard Grindstaff reported on H.R. 10 and tried to impress on members present the need for a program to get out the vote in the November election. There were eight members present.

Cass

The Cass County Medical Society met Oct. 1 at the Ben Hur Motel in Logansport. The Board of Health recommendations concerning polio innoculations were discussed by the 19 members and guests present.

Clinton

Eleven members of the Clinton County Medical Society met Oct. 23 at the Clinton County Hospital.

Delaware-Blackford

Field Secretary Howard Grindstaff met with the Delaware-Blackford County Medical Society Oct. 16 in Muncie. He discussed Federal legislation and what could be done to aid physicians in their fight against socialized medicine.

Elkhart

Dr. A. C. Ivy, Ph.D., spoke on "Cancer —Some Physiological Aspects, Causes and Treatment" before the Elkhart County Medical Society meeting Nov. 1.

Fountain-Warren

The Fountain-Warren County Medical Society met Oct. 4 at the Attica Hotel. There were 10 members and two guests present. Plans were made to meet with area pharmacists and lawyers sometime in November.

Hendricks

Field Secretary Robert Amick met with the Hendricks County Medical Society Oct. 16 at the Hendricks County Hospital. Mr. Amick reported on the ISMA annual meeting and discussed the recent Congress and legislation as it pertains to medicine.

Jefferson-Switzerland

There were 21 members present at the Oct. 2 meeting of the Jefferson-Switzerland County Medical Society. They met at the Hillside Hotel in Madison.

Lake

Dr. Kenneth Stegman, Homewood, Ill., spoke before the combined Lake County Medical Society-Tenth District meeting Oct. 3. His topic was "Adventures with the Medico Orthopedic Program in Saigon,

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Vietnam." There were 146 physicians and guests present.

Lawrence

A committee was appointed to work out details for a polio clinic in Bedford at the Sept. 5 meeting of the Lawrence County Medical Society. A tape recording by Dr. Jonas Salk was played to highlight the meeting.

Montgomery

Twenty-four members of the Montgomery County Medical Society met with Field Secretary Howard Grindstaff in Crawfordsville Oct. 18. Federal legislation and the upcoming election was discussed.

Owen-Monroe

The Owen-Monroe County Medical Society met Oct. 25 to hear Dr. D. A. MacFadyen, director of the I. U. Combined Degree Program in Medical Education, speak. There were 35 members and six guests present.

Wayne-Union

Dr. James Landis of the AMA discussed "Training of Athletes and Treating Athletic Injuries" with 65 members of the Wayne-Union County Medical Society, Oct. 2.

White

Eight members of the White County Medical Society met Oct. 17 at the White County Hospital, Monticello.

Whitley

Dr. Charles G. White spoke on "Medicine in Africa" before the Oct. 9 meeting of the Whitley County Medical Society. There were 20 members present. ◄



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1962—The Convention Story



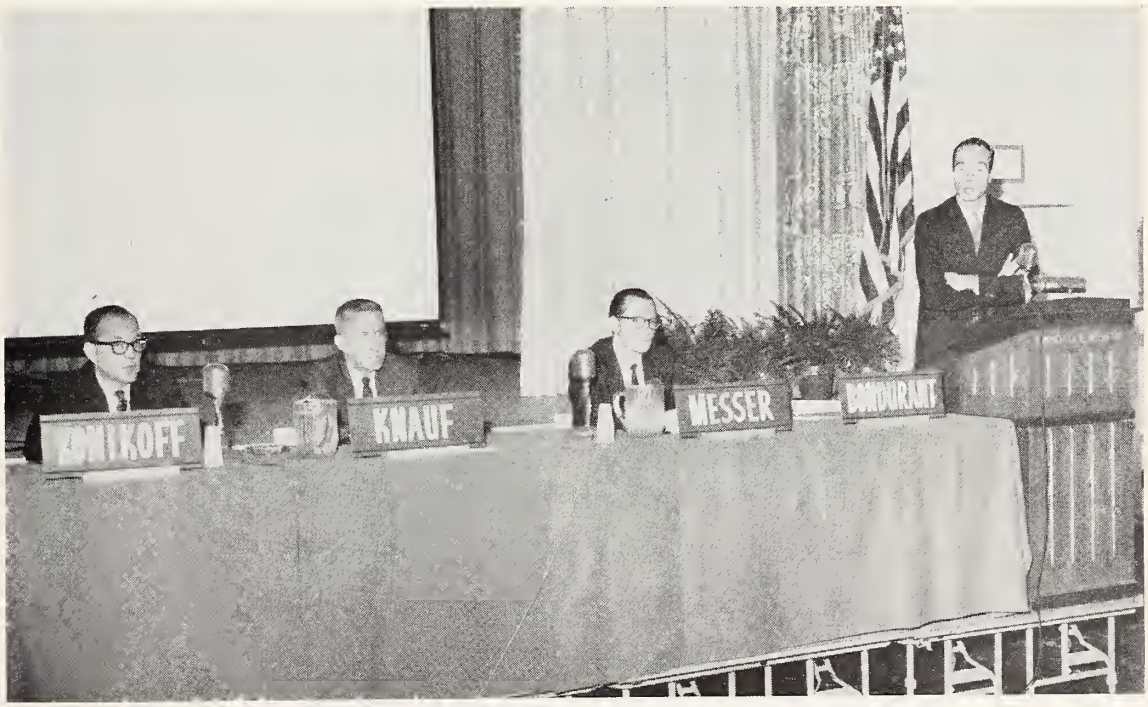
DR. GEORGE FISTER, President of the AMA, was the key-note speaker at the first meeting of the ISMA House of Delegates.



HOUSE OF DELEGATES members listen attentively to the proceedings of their first meeting Sunday night.



FIRESIDE CONFERENCES on Cardio-Respiratory Diseases were a convention highlight again this year—the second year these conferences have been presented.



AEROSPACE MEDICINE was the feature of the Tuesday morning general meeting in convention hall.



THE WOMAN'S AUXILIARY met for dinner Mondoy night in honor of oll post presidents of the orgonizotion.



PROVIDING ENTERTAINMENT Mondoy night for physicions, their wives ond guests wos the Womon's Auxiliory to the Fort Woyne Medical Society.



50-YEAR-CLUB members gather for their onnuol reception. Shown (left to right) are Dr. F. S. Crockett; Dr. ond Mrs. O. T. Scomohorn; Dr. and Mrs. Cloude D. Holmes ond Dr. and Mrs. Williom E. Amy.



THE ANNUAL ART AND HOBBY SHOW featured an outstanding list of exhibits.



TECHNICAL EXHIBITORS spent many hours extolling the merits of their products.



THE I.U. CLASS of 1927 had a wonderful time reminiscing at their luncheon meeting Wednesday.



DRS. STIMSON, GLOCK AND PARIS welcome guests at the President's reception.



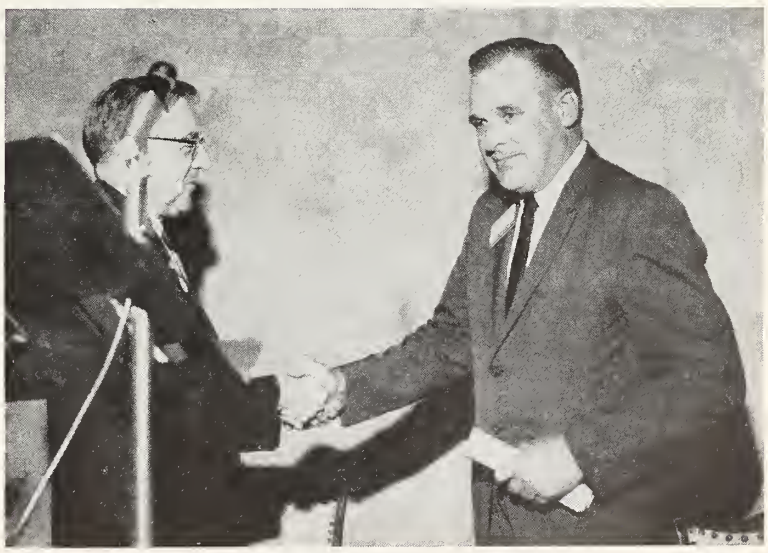
THE ANNUAL BANQUET—always a convention highlight.



DR. MAURICE E. GLOCK, president, 1963, presents the plaque to Dr. Harry Stimson, out-going president.



NEW REGIME — Dr. Harry Stimson presents the presidential gavel to Dr. Maurice Glock.



DR. HARRY STIMSON congratulates Dr. Don E. Wood on his becoming president-elect of ISMA.



THE FLYING PHYSICIANS flew in many of the speakers at the 1962 convention. Members of the group are (left to right, standing) Drs. Marvin Christie, Frank Cable, Farrest Babb, Norbert Welch, Jahn Paris, Michael McGrath and C. Basil Fausset; (left ta right, seated) Drs. Paul Sparks and Dan Urschel.



SCIENTIFIC EXHIBIT WINNERS pose with the plaques they were awarded in the various categories. The winners were (left ta right) Dr. Paul A. Nelson, Cleveland, O., third place; Dr. Carol Klepinger, Indianapalis, second place; Dr. Harold D. Caylor, Blufftan, who accepted the first place plaque far Dr. Charles E. Boonstra, Bluffton and Dr. Danald G. Mason, scientific exhibits chairman.

Convention Election Results:

Dr. Donald E. Wood Named President-Elect by House

Dr. Donald E. Wood, widely known Indianapolis internist, was elected president-elect of the Indiana State Medical Association at the closing session of the ISMA House of Delegates Oct. 10.

Dr. Wood, chairman of the Executive Committee of ISMA since 1958, is also president-elect of the Marion County Medical Society. He will assume the presidency of that organization Jan. 1, 1963.

Chairman of the Commission on Legislation since 1946, Dr. Wood has also been a member of the Council on Legislative Activities of the AMA. He has served ISMA as vice-chairman of the Medical Section; chairman, Medical Section; vice-chairman, Committee on Heart Disease; Committee on Medical and Nursing School Scholarships; Committee on Indiana Inter-Professional Health Council; chairman, Physician-Hospital Relations and Committee on Medical Education and Licensure. Dr. Wood also is a member of the boards of directors of both the Indiana State and Indianapolis Chambers of Commerce.

Also taking office during convention were Dr. Irvin Wilkens, Indianapolis, re-elected treasurer and Dr. Ottis Olvey, Indianapolis, elected assistant treasurer. Elected delegates to the AMA were Drs. Harold C. Ochsner, Indianapolis, E. S. Jones, Hammond, and Francis L. Land, Fort Wayne; their alternates are Drs. James H. Gosman, Indianapolis, Robert M. Brown, Marion, and George W. Willison, Evansville.

Councilors who will represent their respective districts until 1965 are Drs. P. J. V. Corcoran, Evansville, first district; Joseph M. Black, Seymour, re-elected from the fourth district; Albert M. Donato, Indianapolis, seventh; Lowell H. Steen, Whiting, tenth and Jene R. Bennett, South Bend, thirteenth. Dr. K. O. Neumann, Lafayette, was elected chairman.

Results of the various section elections, which took place during the ISMA meeting are as follows:

Section on Surgery: William von der Lieth, Vincennes, chairman; James S. Fitzpatrick, Portland, vice-chairman; Clifford A. Wiethoff, Seymour, secretary.

Section on Internal Medicine: Lowell H. Steen, Whiting, chairman; Isaac E. Michael, Indianapolis, vice-chairman; Paul E. Tischer, Indianapolis, secretary.

Section on Ophthalmology and Otolaryngology: Marvin P. Cuthbert, Indianapolis, chairman; John R. Swan, Indianapolis, vice-chairman; M. Richard Harding, Indianapolis, secretary.

Section on Anesthesiology: Douglas J. Giorgio, Evansville, chairman; M. L. Hicks, Indianapolis, vice-chairman; Cyril Taylor, Indianapolis, secretary.

Section on General Practice: E. T. Edwards, Vincennes, chairman; Eugene S. Rifner, Van Buren, vice-chairman; James W. Crain, Williamsport, secretary.

Section on Obstetrics and Gynecology: Edgar L. Engel, Evansville, chairman; William A. Karsell, Indianapolis, vice-chairman; Elfred H. Lampe, Fort Wayne, secretary.

Section on Public Health and Preventive Medicine: Arnold W. Brockmole, Evansville, chairman; K. O. Neumann, Lafayette, vice-chairman; John E. Arford, Warsaw, secretary.

Section on Radiology: Jack L. Loudermilk, Fort Wayne, chairman; Walter G. Hunsberger, Lafayette, vice-chairman; Richard A. Silver, Indianapolis, secretary.

Section on Nervous and Mental Diseases: Marvin F. Greiber, Muncie, chairman; John U. Keating, Elkhart, vice-chairman; Gordon T. Brown, Indianapolis, secretary.

THE WINNERS—113th Annual Convention, French Lick, Oct. 7-10 . . .

Art and Hobby Show

Oil Paintings

First: Capt. R. B. Greenman, MC/USN, Crane, Indiana

Second: Charles P. Schneider, M.D., Evansville

Third: C. X. McCalla, M.D., Paoli

Black and White Photography

First: James F. Lewis, M.D., Liberty

Second: John Ling, M.D., Richmond

Hobbies

First: Jointly to Ray H. Burnikel, M.D., and C. Curtis Young, M.D., Evansville (Orchid display)

Second: W. A. Nelson, M.D., Gary (Fishing motion picture)

Honorable Mention: Guy B. Ingwell, M.D., Knox (Fishing motion picture)

Crafts

First: Wendell C. Stover, M.D., Boonville (Ceramics)

Collections

First: Lall G. Montgomery, M.D., Muncie (Eskimo art collection)

Second: Kenneth Sherer, M.D., Richmond (Train collection)

Trap and Skeet Shoot

First: 16-yard trap—R. J. Stamper, M.D., Anderson

Second: 16-yard trap—C. A. Laubscher, M.D., Evansville

First: Skeet—R. J. Stamper, M.D., Anderson

Second: Skeet—C. A. Laubscher, M.D., Evansville

First: Handcap trap—R. J. Stamper, M.D., Anderson

Second: Handicap trap—(Tie) James Lewis, M.D. Liberty and J. D. Miller, M.D., Indianapolis (Dr. Lewis won the prize by a flip of the coin)

Golf Tournament

First low gross: George C. Poolitsan, M.D., Bloomington

Second low gross: William D. Ritchie, M.D., Evansville

Third low gross: James H. Bivin, M.D., Mooresville

Longest drive: W. H. Thompson, M.D., Indianapolis

Closest to the Pin: H. J. Henry, M.D., Knox

First Low Net: Meredith B. Gossard, M.D., Tipton

Second Low Net: Frederick L. Schoen, M.D., Fort Wayne

Third Low Net: R. H. Appel, M.D., Indianapolis

Fourth Low Net: Frank Green, M.D., Rushville

Fifth Low Net: W. R. Thompson, M.D., Winamac

Scientific Award Winners—1962

First Place Award: The Clinical Value of Routine Serum Calcium Analysis

Exhibitor: Charles E. Boonstra, M.D., Bluffton

Second Place Award: Inflammatory Polyps of the Intestinal Tract

Exhibitors: Carol A. Klepinger, M.D. and Edwin C. Pontius, M.D., Indianapolis

Third Place Award: Treatment of Lymphedema of the Arm

Exhibitors: Richard C. Britton, M.D. and Paul A. Nelson, M.D., Cleveland, Ohio

Honorable Mention

Occlusive Rheumatic Arteritis in the Brain and other Organs in Patients with Rheumatic Valvular Heart Disease

Exhibitors: Walter L. Bruetsch, M.D. and Clifford L. Williams, M.D., Indianapolis

The Spatulas: A New Concept in Obstetrics

Exhibitors: Hans E. Geisler, M.D. and Harmon Lushbough, M.D., Indianapolis

Space Medicine

President's Address

HARRY R. STIMSON, M.D.
Gary

THE TIME IS rapidly approaching when I give up the gavel as President of the Indiana State Medical Association and will be replaced by someone who is fresh, strong and eager to begin his term of office. I think this is as it should be. I face this with very much mixed emotions as I imagine others have before me. On the one hand it will be some relief to have some time to call my own and some time to practice medicine. It is difficult to conceive of anyone holding this position without the help of a partner or partners or if in solo practice—the help of his colleagues. But anyone assuming and accepting this responsibility should realize these things and be willing to sacrifice to fulfill the obligation which accompanies the office.

On the other hand, the opportunity to serve as President of such a group as the ISMA is so rewarding in the experiences it provides and the associations it affords, that one can hardly fail to regret to a certain degree the passing of time which requires him to give up this position to his successor. One in this position, even with its trials and tribulations which are very insignificant compared to the cooperation received from his colleagues, soon learns that he is associating with the finest group of people in all society and one must have pride and satisfaction in this fact.

I believe at this time it is proper to briefly review some of the accomplishments of the association during the past year. One cannot help but include some recommendations during such a review and there is no intention to outline a program for the new administration. Also it must be remembered that many of the so called accomplishments of this or any other year are in reality continuations of projects begun previously or the finalization of a project that may have begun a year or more before this past year began.

In my opinion one of the high points in the accomplishments of our association in the past several years occurred during this past year and that is the completion of our new headquarters building at 3935 North Meridian St., Indianapolis. This is one of those projects which was started several years ago. There have been several building committees during the past few years which came up with many ideas and plans. The authorization for the building just completed was given by the House of Delegates at the 1960 Annual Meeting here in French Lick and the present Building Committee was named in 1959.

Ground was broken for this building in April, 1961, and the building was occupied by our headquarters staff on May 7, 1962. As you all know, the formal dedication was held on July 15, 1962, with the President of the AMA, Dr. George Fister, honoring us with his presence that day. I am very proud of this building and I believe all of you should be. I urge each and every member of the association who has not already seen the building to make a special effort to do so, for I believe we have quite a monument to Indiana medicine here.

We are continuing our efforts to improve the relationship with fellow physicians in full-time jobs with government, industry and the medical school; in other words those not in private practice. I do not feel that we as an association or as individuals or they as individuals are receiving the full potential of their association with organized medicine. And I believe that we as an association should continue to study ways and means of bringing them more fully into the total picture.

Our liaison with the State Department

of Public Welfare is an example of this effort and I believe is developing favorably. Also the Dean of the Medical School and the Secretary of the State Board of Health are continuing to be invited and are continuing to attend the Council meetings. This is another example of the aforementioned efforts.

I would like to call your attention for just a minute to the "image" of the doctor as held by the public which we serve today. You will hear much pro and con regarding this image and too frequently we hear that this image is not good. I am one of those who believe very strongly that this concept is incorrect and to the contrary, the image is good. You know that the level of this image to a certain extent is in the hands of all of us who practice medicine, and not only must you do everything you can to raise this image but also you must offer objection and rebuttal when you hear the image of the doctor being down-graded without reason.

The medical profession is today more productive than ever before and also we are the most self-disciplined group in the world—yet some people pick us out for abusive and unjust criticism. You must also remember that we will continue to receive unjustifiable abuse from those who hold the opposite view of medical philosophy. We shall have a continuing battle with those of the welfare state medical viewpoint about which I shall have a few more words to say later on.

As you know there was a special meeting of the House of Delegates in Indianapolis on Sunday, March 11th of this year. I mention this more because of its rarity than because of those things considered at this meeting, for special meetings of the Indiana State Medical Association House of Delegates are few and far between. Since all of you should be aware of what transpired at this meeting and for the sake of brevity I shall not enumerate the issues involved at this meeting but suffice it to simply say that the meeting was well attended and was long and interesting.

Our relationships with Blue Shield and Blue Cross I believe have improved during the past year. This has been made possible by all parties concerned coming to the common sense point of view that cooperation by all will yield excellent results whereas unnecessary compulsory rules and regulations will only tend to aggravate relations. I do not intend to convey the idea here that we have always seen eye to eye with the Blues for we surely have not. But I do intend to point out that the arbitrary decision or regulation unilaterally of one without consultation with the other is not the best way in the world to make friends and influence people. Without question cooperation of the medical profession with all types of voluntary health insurance is essential and is one of our chief weapons against any type of involuntary or socialized medicine.

We used to call this phase of medical activity our legislative effort, but let's be a little more practical here and call it practical politics. The day of a physician having only a luxurious activity in clinical medicine is gone, I am afraid forever, and now it is imperative that all physicians take part in active politics. Better care for our patients does not necessarily insulate us against centralization but rather makes it more attractive for some government agency to take us over. You all know that in the past the Wagner-Murray-Dingle bill was defeated by hard work by the medical profession; then along came the Forand type of legislation a couple of years ago and although it was defeated it took much more effort on the part of the doctors. In the Congress just ended, the same philosophy of socialized medicine was contained in the King-Anderson bill, and this too was defeated by a really heroic effort of medicine and its many allies, for we do have many allies if we only recognize them. You may rest assured that more of the same type of legislation will be introduced in the next Congress and it will take the effort of all of us to conquer this. In other words we have won a battle but the war continues.

Let us deviate here for just a moment and look at this whole subject of socialized medicine and private enterprise from a

different angle. Let me use some ideas obtained from the address given by Dr. G. K. Higgins of Calgary, Alberta, Canada before the AMA Institute in Chicago the latter part of August. The basic argument against compulsory state medicine, states Dr. Higgins, is that it abrogates the rights of those receiving the care and more especially those providing the care. He suggested that the profession in the United States should make clear in its criticism of and resistance to compulsory state medicine, it is merely acting in the forefront for the moment of the battle carried on for centuries by all Americans to insure the continuance of their inalienable rights granted to the American citizen by the Declaration of Independence and the Constitution.

The Declaration of Independence states and I quote of course: "We hold these truths to be self evident, that all men are created equal, and they are endowed by their Creator with certain inalienable rights, that among those are life, liberty and the pursuit of happiness." Article 13 of the Constitution declares: "neither slavery or *involuntary servitude*, except as punishment for crime whereof the party shall have been duly convicted shall exist within the United States or any place subject to their jurisdiction." It would seem to me that the foregoing surely justifies our opposition to compulsory state medicine which is *involuntary servitude*.

Now to get back to the task at hand at this moment and that is November 6th which you all know is election day, when every member of the House of Representatives will be elected and one-third of the members of the Senate will likewise be elected. The type of men sent to Washington will in a large part help determine what will happen to the medical legislation which is sure to be introduced.

Just after the Senate virtually defeated for the time being the Social Security type medical health care on the 17th of July last, those forces working for the enactment of this type of legislation announced that this would be an important issue in the fall elections. They intimated that they would attempt to defeat those Senators and Congressmen who had voiced opposition to this type of legislation.

More recently there has been a primary election in Tennessee and these same forces are holding up the results of this primary as evidence of their strength and determination to defeat congressmen who are opposed to Statism. Can any one of you fail to see the urgency to get yourself and everyone of your friends out for the November 6th elections? It is estimated, according to Dr. Edward R. Annis, president-elect of the AMA, that there are well over a million people seen in physicians' offices in this country daily. Mind you, you and I and others like us see this many people daily and just imagine what an impact we can really exert politically if we make the proper effort and present our side of this picture in a true light, and that true light is only the truth. Really we should have no fear of the truth for if the American people can be properly informed, our problems can be tremendously reduced.

Two years ago an organization called I-HOPE (Indiana Health Organization for Political Education) was developed because the need for medical political action was recognized. Through this organization political activities of physicians' groups can and are being accomplished. This organization is separate and distinct from the ISMA. Some may wonder why a separate organization was necessary and why the same activities of I-HOPE could not be carried out by the ISMA?

By law the ISMA and the AMA and like organizations are prohibited from collecting monies to contribute to specific candidates. And since this activity is necessary in modern practical politics the need for I-HOPE is apparent. It deserves the active support of every physician in Indiana. AMPAC is a similar organization on a national scale and as mentioned before is separate and distinct from the AMA. These groups need your support now, before the elections on November 6th.

One must gather from my quotes from the Declaration of Independence and the

Constitution that in our practical politics these days we cannot stand for medicine alone but must stand up and oppose any threat to all free enterprise.

There are many individuals and many groups to whom I owe much for their loyalty and work during the past year. To name all of them is impossible. First I must remember and thank the membership of the association as a whole for their loyalty, and the work done by the members of the separate committees and commissions has been good. I appreciate the cooperation given by the House of Delegates. The Council and the Executive Committee perhaps should be at the head of this list for they are always vigilant in protecting the interests of the association.

The president-elect has been like a strong right arm. The Woman's Auxiliary has been invaluable in its many facets of endeavor, particularly in their legislative activities. I can hardly leave out the headquarters staff who always work hard and loyally and particularly our field representatives who are always around when you want them and sometimes when you don't. And last but certainly not least our Executive Secretary Jim Waggener. Jim has more information at hand when you want it than anyone I have ever known. So thank you all.

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House of Delegates Proceedings

FRENCH LICK SESSION

October 7-10, 1962

The House of Delegates convened at 6:00 p.m., Sunday, October 7, 1962, and again at 12:30 p.m., Wednesday, October 10, 1962, in the West Dining Room of the French Lick-Sheraton Hotel, French Lick, with the president, Dr. Harry R. Stimson, Gary, presiding.

Dr. O. T. Scamahorn, of Pittsboro, gave the invocation at the opening of the first meeting of the House during the 113th annual session.

Credentials Committee Report

On motion of many, seconded by Dr. Eades, attendance slips signed by the delegates were accepted in lieu of a roll call at the first meeting. Dr. William E. Amy, chairman of the Reference Committee on Credentials, reported 104 delegates, four past presidents, ten councilors, the president, the president-elect, the treasurer, three delegates to the AMA, the editor of *The Journal*, two alternate councilors, and six guests present at this meeting.

At the second meeting it was moved by many, seconded by Dr. Stover, put to vote, and carried, that attendance slips filled in by the delegates would constitute the roll call. Present for the second meeting, as reported by Dr. Amy, were 101 delegates, two past presidents, 12 councilors, the president, president-elect, the treasurer, three delegates to the AMA, two alternate councilors and eight guests.

According to Chapter IV, Section 3, of the Bylaws, 50 delegates constitute a quorum. The House of Delegates, therefore, was declared open and ready for the transaction of business.

The president read Chapter XXXII, Section 1, of the Bylaws, and Article XIV of the Constitution regarding amendments to the Bylaws and Constitution.

In Memoriam

The House stood for a moment's reverence to the following physicians who had served as members of the House of Delegates, or in an official capacity in the association, and who had passed away since the 1961 annual convention:

EARLE B. CALL, Knightstown. Secretary, Henry County Medical Society, 1909-10.

BENJAMIN W. CHIDLAW, Hammond. Member, War Participation Committee, 1945; member, Post War Committee, 1946; member, Committee on Veterans Affairs and Rehabilitation, 1954.

CECIL P. CLARK, Indianapolis. Chairman, Section on Ophthalmology and Otolaryngology, 1944.

STANLEY A. CLARK, South Bend, Secretary, St. Joseph County Medical Society, 1915; chairman, Committee on Arrangements, 1920; member, State Division of Public Health Liaison Committee to Deal with Social Security Act, 1936.

GEORGE V. CRING, Portland. Secretary, Jay County Medical Society, 1913-15; delegate, Jay County, 1942-49; member, Committee on Prevention of Traffic Accidents, 1937-40; member, Committee on Rural Medical Care, 1945-47; member, Committee on Revision of Constitution, 1946; member, Committee on Necrology, 1948; member, Committee on School Health and Physical Education, 1949-50.

HARDIN S. DOME, Tell City. Delegate, Perry County, 1957.

HERBERT D. FAIR, Muncie. Secretary, Delaware-Blackford County Medical Society, 1912-20; chairman, Committee on Necrology, 1921-22.

CHARLES F. FLETCHER, Sunman. President, Dearborn-Ohio County Medical Society, 1933.

WILLIS D. GATCH, Indianapolis. Member, Committee on Scientific Demonstrations, 1914-15; chairman, Committee on Postgraduate Study, 1931; ex-officio member, Committee on Graduate Education, 1932, 1934-36; chairman, Committee for the Study of Lay Activity in Medical Practice, 1944-46; chairman, 1947, and member, 1950, Committee on Public Relations; member, Committee on Centennial Celebration and History, 1948-49; member, 1953, and chairman, 1954, Cancer Committee.

FRED C. GLENN, Tell City. President, 1955, and delegate, 1942, Perry County Medical Society.

VIERL C. GRIFFIS, Richmond. Secretary, Wayne-Union County Medical Society, 1919.

NORMAN E. JOBES, Indianapolis. Member, Committee on Scientific Exhibits, 1920; chairman, Committee on Industrial and Civic Relations, 1921; member, Committee on Arrangements, 1924.

ALAN W. JOHNSTON, Martinsville. Secretary, Morgan County Medical Society, 1961.

T. VICTOR KEENE, Indianapolis. Chairman, Committee on Tuberculosis, 1908-09; member, Committee on Pathology, 1911-12; member, Committee on Arrangements, 1914-15, 1924.

RALPH L. LOCHRY, Indianapolis. Delegate, Marion County, 1934, 1937-42, 1946.

CHESTER A. MARSH, Hagerstown. Secretary, Henry County Medical Society, 1922.

DENNIS W. MATTHEWS, North Vernon. Delegate, Jennings County, 1936-41; 1944-58; member, Committee on Tuberculosis, 1956-57.

BASIL M. MERRELL, Rockville. Secretary, 1949, President, 1955 and 1960, and delegate, 1948, 50, 56, 58 and 60, Parke-Vermillion County Medical Society; member, Commission on Medical Education and Licensure, 1959-61.

HENDERSON L. MILLER, West Baden Springs. Secretary, Orange County Medical Society, 1913-18; member, Committee on Arrangements, 1926.

WALTER P. MOENNING, Indianapolis. Member, Committee on Convention Arrangements, 1944.

WILLIAM J. MOLLOY, Muncie. Third Vice-president, Indiana State Medical Society, 1914-15.

E. BISHOP MUMFORD, Indianapolis. Member, Committee on Industrial Health, 1943; member, War

Participation Committee, 1943; member, Committee on Industrial Health, 1945-47.

GROVER M. NIE, Huntington. Secretary, Huntington County Medical Society, 1925-26, 1939, 1941-47; delegate, Huntington County, 1938, 1944-48, 1950-53, 1955-58; member, Committee on Prepayment of Medical and Surgical Care, 1945; member, Conference of County Medical Society Officers, 1956-57.

EVERETT A. RAINEY, Lebanon. Secretary, 1922, 1931-32, 1935, and delegate, 1934-36, Boone County Medical Society.

ARTHUR C. RETTIG, Muncie. Secretary, Delaware-Blackford County Medical Society, 1934-35.

CLARENCE V. ROZELLE, Anderson. Delegate, Madison County, 1937-38, 1940-41; 1946-49; member, Committee to Study Cultists and Irregular Practitioners, 1938; member, Committee on Occupational Diseases, 1939; chairman, Committee on Industrial Health, 1940-42; member, Postwar Committee, 1946; member, Committee on Cancer, 1948; chairman, Committee on Traffic Safety, 1949; member, Committee on Civic Relationship and Community Health Agencies, 1949; member, Committee on School Health and Physical Education, 1952-53; member, Committee on Public Policy and Legislation, 1955-57; member, Commission on Inter-Professional Relations, 1958-60.

JOHN W. SLUSS, Indianapolis. Member, Committee on Public Policy and Legislation, 1922-24; member, Committee on Arrangements, 1924.

RUSSELL J. SPIVEY, Indianapolis. Delegate, Marion County, 1955-60; secretary, Section on General Practice, 1954; member, Committee on Publicity, 1955; member, Liaison Committee with State Department of Public Welfare, 1955; member, Grievance Committee, 1957-61; member, Commission on Inter-Professional Relations, 1958-59.

ARTHUR J. STEFFEN, Wabash. Secretary, Wabash County Medical Society, 1936-37, 1952; delegate, Wabash County, 1952 and 1959; member, Committee on Chronic Illness, 1953.

EMIL F. STEINKAMP, Huntingburg. Secretary, Dubois County Medical Society, 1925.

WALTER M. STOUT, New Castle. Secretary, Henry County Medical Society, 1923; member, Military Committee, 1924; member, Committee on Diphtheria Prevention, 1933; delegate, Henry County, 1935-41, 1946-58; member, Committee on Veterans' Affairs and Rehabilitation, 1954; member, Committee on Military Manpower, 1956-57.

ADRON A. SULLENGER, Vincennes. Secretary, Knox County Medical Society, 1957.

RICHARD C. SWAN, Anderson. Member, Committee on Industrial Health, 1950-54; member, Committee on Conservation of Hearing, 1955; member, Committee on Industrial Health, 1957; member, 1958-59 and 1961, and vice-chairman, 1960 and 1962, Commission on Public Health; president, Eighth District Medical Society, 1959; president-elect, 1959, and president, 1960, Madison County Medical Society.

JAY THOM, Indianapolis. Secretary, Owen County Medical Society, 1933.

WILLIAM E. TINNEY, Indianapolis. Chairman, Surgical Section, 1931-32.

JAMES PRESTON VYE, Gary. Delegate, Lake County, 1950-56; Tenth District Councilor, April 19, 1955—March, 1962; member, Committee on Diabetes, 1953; member, Committee on Preceptorships, 1954; member, Commission on Legislation, 1958-60; member, Commission on Constitution and Bylaws, 1961-62.

WILLIAM W. WEAVER, New Albany. Delegate, Floyd County, 1940-41; member, Committee on State Fair, 1949.

ROBERT E. WILLIAMS, Lafayette. Member, Commission on Governmental Medical Services, 1958.

ROLAND E. WYNNE, Bedford. Secretary, Lawrence County, 1945-46.

ALBERT C. YODER, Goshen. Delegate, Elkhart County, 1934-44; 1946-50; member, Special Committee on Medical Care of the Indigent, 1933; member, Committee on Diphtheria Prevention, 1936; member, Permanent Study Committee on Health Insurance, 1939-44; member, Medical Economics Committee, 1945-46; member, Committee on Centennial Celebration and History, 1948-49.

1961 Minutes

Minutes of the meetings held at Indianapolis October 23 and 26, 1961, were approved as printed in the December, 1961, *Journal*, on motion of many, seconded by Dr. Shellhouse.

Introduction of Guests

GEORGE M. FISTER, M.D., Ogden, Utah, president, American Medical Association.

GEORGE F. LULL, M.D., Chicago, president, Illinois State Medical Society.

DAVID M. COX, M.D., Louisville, president, Kentucky State Medical Association.

HORATIO T. PEASE, M.D., Wadsworth, Ohio, president-elect, Ohio State Medical Association.

Dr. Fister addressed the House of Delegates, speaking principally on two subjects: (1) one of the great new projects of the AMA, the student guaranteed loan program, and (2) the current political issue facing the medical profession.

Recognition of Dr. William E. Amy

The members of the house stood in recognition of Dr. William E. Amy, of Corydon, who had served continuously for twenty-nine years as chairman of the Reference Committee on Credentials. In September, 1941, at the annual convention, Dr. Amy presented a gavel to the association which he had carved from wood taken from the constitutional elm at Corydon.

1962 Reference Committees

The chairman announced the appointment of reference committees for the 1962 session as follows:

Sections and Section Work

Truman E. Caylor, Bluffton (Wells), Chairman.
Robert M. Brown, Marion (Grant).
Virgil C. McMahan, Vincennes (Knox).
Peter R. Petrich, Attica (Fountain-Warren).
Howard S. Williams, Jr., Indianapolis (Marion).

Rules and Order of Business

Harry Pandolfo, Indianapolis (Marion), Chairman.
Lowell W. Painter, Winchester (Randolph).
Richard W. Wagner, Huntington (Huntington).
Eli Goodman, Charlestown (Clark).
Clarence G. Kern, Lebanon (Boone).

Medical Education and Hospitals

Earl W. Mericle, Indianapolis (Marion), Chairman.
Paul T. Lamey, Anderson (Madison).
Fred Brown, Ft. Wayne (Allen).
Wendell C. Stover, Boonville (Warrick).
Thomas M. Brown, Muncie (Delaware-Blackford).

Legislation
Eugene F. Senseny, Ft. Wayne (Allen), Chairman.
J. B. Burcham, Gary (Lake).
T. Neal Petry, Delphi (Carroll).
Donald R. LaFollette, New Albany (Floyd).
Charles Y. Knowles, Indianapolis (Marion).

Public Relations
Thomas D. Armstrong, Michigan City (La Porte), Chairman.
P. J. V. Corcoran, Evansville (Vanderburgh).
J. M. Kirtley, Crawfordsville (Montgomery).
W. A. Nelson, Gary (Lake).
S. E. Bechtold, South Bend (St. Joseph).

Hygiene and Public Health
Frank Oliphant, Mount Vernon (Posey), Chairman.
William Cron, Warsaw (Kosciusko).
Donald G. Mason, Angola (Steuben).
Leslie M. Baker, Aurora (Dearborn-Ohio)
Floyd A. Boyer, Indianapolis (Marion).

Amendments to Constitution and Bylaws
Guy A. Owsley, Hartford City (Delaware-Blackford), Chairman.
Glen Ward Lee, Richmond (Wayne-Union).
Stuart R. Combs, Terre Haute (Vigo).
James H. Gosman, Indianapolis (Marion).
John B. Nicosia, East Chicago (Lake).

Reports of Officers
R. Case Hammond, Evansville (Vanderburgh), Chairman.
Logan Dunlap, South Bend (St. Joseph).
A. E. Stouder, Kempton (Tipton).
Virgil McCarty, Princeton (Gibson).

Credentials
Wm. E. Amy, Corydon (Harrison-Crawford), Chairman.
O. T. Scamahorn, Pittsboro (Hendricks).
F. S. Crockett, Lafayette (Tippecanoe).
Arthur Schoonveld, Brook (Jasper-Newton).
Julius M. Klaus, Gary (Lake).

Insurance
Wallace D. Buchanan, South Bend (St. Joseph), Chairman.
James H. Crawford, Evansville (Vanderburgh).
John W. Beeler, Indianapolis (Marion).
Joseph F. Ferrara, Franklin (Johnson).
Michael Shellhouse, Gary (Lake).

Miscellaneous Business
Frank H. Green, Rushville (Rush), Chairman.
Guy B. Ingwell, Knox (Starke).
Milton B. Gevirtz, Hammond (Lake).
Glynn A. Rivers, Muncie (Delaware-Blackford).
Nolan A. Hibner, Monticello (White).

Reports of Reference Committees

REPORTS OF OFFICERS

The following matters were referred to the Reference Committee on Reports of Officers. All reports will be found on the pages indicated in the September, 1962, Vol. 55, No. 9 *Journal* of the Indiana State Medical Association, with the exception of the president's address, which will be found on pages 1861-64 of the December, 1962, *Journal*, and the president-elect's address and the address of the president of the Woman's Auxiliary, which are printed herewith.

President's address
President-elect's address
Executive Secretary (page 1414)

Treasurer (pages 1414-1417) and supplemental report presented by Dr. Irvin W. Wilkens, treasurer:

"The report as found in the handbook is a maze of figures. As of a week ago, after the official audit, I had a consultation with Mr. Bixby, and we came up with a rather favorable report, financially. *The Journal* deficit will be corrected through the action taken at the special meeting of the House of Delegates in March, at which time the subscription fee for *The Journal* was raised to $8.00 per year, starting January 1, 1963.

"Under the able guidance of the Building Committee, the new headquarters office has been completed at a cost of $397,000.00, just slightly under the figure allotted by the House of Delegates. The building is going to be well worth while, as it will be a saving in that the various committee and commission meetings can be held there.

"As to paying for the building, I was faced with the lack of funds. However, I was given the privilege of borrowing $150,000.00 from the bank at 5% interest, or cashing in some of our securities. As of tonight, as approved by the Executive Committee and the Council, I am authorized to borrow an additional $18,000.00, which brings the total borrowed to $83,000.00. This, with $88,000.00 of securities, which will be cashed with the loss of a little bit of interest, but which will be less than the 5% it would take to borrow the additional $80,000.00 from the bank, will enable us to meet our current expenses.

"I have just one thing to add—if those members who have not sent in their $50.00 building fund donation, or loan, would do so, that would permit me to cut down the total indebtedness which we have with the bank."

Chairman of Council (pages 1418-1420)
Councilors' reports (pages 1420-1427)
Executive Committee (pages 1431-1435)
Address of President of Woman's Auxiliary
Journal Editor (page 1427) and amended report presented by Dr. Frank B. Ramsey, editor:

"The report of the Editor is amended by adding a paragraph before the last paragraph of the report as published, as follows:

"On October 7, 1962, the Council reconstituted the Business Advisory Committee for *The Journal* as a committee of the Council to be appointed by the chairman from the membership of the Council."

Delegates to AMA (pages 1427-1430)

President's Address

The address of the president, Dr. Harry R. Stimson, is printed on pages 1861-64 of the December, 1962, *Journal* of the Indiana State Medical Association.

President-Elect's Address

DR. MAURICE E. GLOCK, president-elect, addressed the House as follows:

Mr. President, distinguished guests, members of the House of Delegates:

I am not as cocky as I was a year ago. As an extern, I have had good guidance in the past year from President Stimson, and have found that there are many more facets to this job than are apparent.

As somewhat of a personal failure, and a partial physical crock, I face the coming year with some temerity and much humility. A doctor friend in my home community who has had a number of physical disabilities plans to open a clinic. He plans to call this "The Tired Doctor Clinic." The slogan will be: "Anything you've got, we've had." He has given me an advance offer as vice-president when I finish my term of office.

My platform is simple: that we continue to give the best possible medical care to everybody regardless of age, race, color, creed, or financial status.

In spite of Dr. Fister's complimentary and flattering remarks about our organization, I am concerned with the apparent apathy and complacency of a large segment of our membership. Most of you heard and saw "Big Brother" on television one week ago saying "You don't have to agree with the *lawr*, but you have to obey the *lawr*." This is like they used to tell us in the army, "You don't have to like the army, but we can make you wish that you did."

We must not wait until unfavorable legislation is passed, as in Saskatchewan, but we must work diligently and effectively that such legislation is not passed, and we must not be placed in a position of being forced to swallow a very bitter pill indeed.

I, as president, the Council, you as delegates, our very active commission members, cannot alone safely guarantee that we will be able to continue our free practice of medicine. Each member must contribute fully his talents, energy, and financial resources in this continuing struggle in order to spell success.

I will deeply appreciate all of the help that you can give to me in the coming year. I will especially appreciate any suggestions you may have to activate and energize those members who at this time are not taking an active part.

REFERENCE COMMITTEE ACTION

Dr. R. Case Hammond, chairman, presented the following report:

The Reference Committee on Reports of Officers reviewed the reports referred to them found on pages 87 to 140 in the handbook, plus supplemental reports, the address of the President, the President-elect and the President of the Woman's Auxiliary.

The committee found these reports to be excellent, indicating the administration and function of the Indiana State Medical Association is in competent hands.

1. Your reference committee wishes to state that the address of President Stimson was a well presented, comprehensive review of the enormous amount of work done by the association during the past year. We are rightfully reminded that we are now fighting for our existence and must increase our efforts in order to combat the ever increasing sphere of socialism.

2. President-elect Glock's address stressed the apathy of our membership. Dr. Glock appears to be fully conscious of the arduous duties ahead in the coming year.

Mr. President, I move the adoption of this portion of our report.

(Motion seconded by many, put to vote, and carried.)

Dr. R. Case Hammond, chairman, continued with the report of the Reference Committee on Reports of Officers, as follows:

Report of Executive Secretary

3. James Waggener has, as usual, given another good report.

We should be proud of our educational program against the social security system of government medicine because Indiana was again used as a model for other states by the AMA.

We wish to thank the executive secretary and his staff for the help given to any and all the members when needed. Particularly we would like to remember the secretaries whose cheerful, willing cooperation has made our associations with the central office a pleasure.

Mr. President, I move the adoption of this portion of our report.

(Motion seconded by many, put to vote, and carried.)

Report of Treasurer

4. We wish to commend the Treasurer on his efforts in this rather trying time, with the building fund. This burden to him, and each of us could be eased if the more than 1,600 physicians who have not contributed their $50.00 would do so immediately.

Mr. President, I move the adoption of this portion of our report.

(Motion seconded by many, put to vote, and carried.)

Report of Chairman of Council

5. The committee wishes to commend the Chairman of the Council, Dr. Paris. His report indicated the great volume of work required of the Council this year.

Mr. President, I move the adoption of this portion of our report.

(Motion seconded by many, put to vote, and carried.)

Reports of Councilors

6. The reports of the councilors indicate increased activity and interest in the association at the district levels. All district officers are to be congratulated.

Mr. President, I move the adoption of this portion of our report.

(Motion seconded by many, put to vote, and carried.)

Report of Executive Committee

7. The report of the Executive Committee was reviewed. This report covers each meeting of the above named committee as well as special reports covering Medical Defense activities, membership and business matters pertaining to *The Journal* of the Indiana State Medical Association. This committee has been very active in the past year and is to be commended for work well done.

Mr. President, I move the adoption of this portion of our report.

(Motion seconded by many, put to vote, and carried.)

Woman's Auxiliary Presidential Address

MRS. THOMAS W. JOHNSON, Indianapolis, president of the Women's Auxiliary to the Indiana State Medical Association, addressed the House as follows:

May I say that it is indeed a pleasure to be here and to report to you on a few of the activities of your auxiliary. Auxiliary means helper and we hope that is just what we are—your helper.

First, I want to again thank the four busy doctors from the I-HOPE board—Dr. Edwards, Dr. Black, Dr. LaFollette and Dr. Senseny, who took time from their busy schedules to speak at our four area workshops. It is at these workshops that our state officers and chairmen try to pass along to our key people on the county level the main objectives of our auxiliary for the coming year. Needless to say, one very big objective is to help win the next election—to send men to Congress who will help to fight to preserve our free enterprise system. Our women (your wives) are doing a tremendous job—they are speaking, they are having coffees, they are helping with voter registration and poll taking; they are working and working hard. Thousands of letters went from our auxiliary to our congressmen and senators last year.

While we are working hard in the field of legislation, we are not forgetting that we have other obligations. The Indiana Auxiliary last year contributed more than $16,000 to the American Medical Education Foundation. Over $244,000 was given by the combined auxiliaries from the 50 states. You all know that we've had a scrambling of the alphabet this year and AMEF is now AMA-ERF. The auxiliary hopes to increase its giving since we are also contributing now to the AMA student guaranteed loan program, which permits medical students to borrow for their education. As you know, the banks now lend 12½ dollars for every dollar set aside by the American Medical Association—Education Research Foundation.

Despite the general public lethargy in regard to Civil Defense, I must tell you what one of our very small auxiliaries is doing in that area. Mrs. Warren Morris has arranged, with the cooperation of the school system, to have "Medical Self Help" taught to all high school seniors in the Monticello schools. She has further arranged for an adult education class within the county and a similar class for the nurses' aides at the local hospital, where she herself will help teach the course. Several of your wives who are also R.N.'s have taken Civil Defense Disaster Training. I think that is just wonderful, coming from a little auxiliary of ten members.

The county auxiliaries last year sponsored 28 future nurses' clubs, representing some 1,500 high school girls, and more are being organized in our high schools this year. Though this number may not sound large, I hope you understand that these clubs, once they are under way, the sponsorship is often assumed by a member of the high school faculty. The same county auxiliaries gave to 55 deserving students of nursing, technology or other paramedical careers, $10,245 in scholarships. These, along with helping in such community projects as Red Cross, United Fund, blood-banks, polio clinics, Boy Scouts, Girl Scouts, P.T.A., church work, hospital auxiliaries and guilds, comprise a few more of our community services, which cannot but help to enhance the image of the doctor's wife, as an individual interested in her community and not only willing to do something, but doing it.

And this year, as never before, we are coming to realize that our community is world wide. So, we have assumed a new responsibility—International Health Activities. We are cooperating primarily with World Medical Relief in Detroit, and we have already sent some things to Detroit. We are collecting used instruments, sample drugs, old shirts and sheets, crutches, braces, eye glasses, office equipment, hospital supplies, etc. We have the use of a church gym in Indianapolis for storing these things until we can get them on the way to missionaries and missionary doctors in foreign fields, where your discards become their treasures. Thank you.

REFERENCE COMMITTEE ACTION

Dr. R. Case Hammond, chairman, presented the following report:

8. The report of the President of the Woman's Auxiliary to the Indiana State Medical Association was reviewed. The auxiliary is to be thanked again for their continuing support. They are especially to be complimented for their value in AMA-ERF work and for their activities on an international scope in collecting drug samples for use by foreign missionaries.

Mr. President, I move the adoption of this portion of our report.

(Motion seconded by many, put to vote, and carried.)

Report of Editor of *The Journal*

9. The report of the editor of *The Journal* indicates the continued dedication of the editor. *The Journal* shows excellence of scientific material and soundness of business practices.

Report of Delegates to AMA

10. The report of the delegates to the American Medical Association was reviewed. The report of the delegates is complete in every detail and was presented in a very understandable fashion. We wish to compliment the delegates to the American Medical Association, as well as their alternates, for the great amount of time and energy spent in behalf of the membership of the Indiana State Medical Association.

Mr. President, I move the adoption of this portion of our report.

(Motion seconded by many, put to vote, and carried.)

Mr. President, I move the adoption of this report as a whole.

(Motion seconded by many, put to vote, and carried.)

SECTIONS AND SECTION WORK

Dr. Truman E. Caylor, chairman, presented the following report:

There were no references of material made to this committee by the House of Delegates.

We however individually visited the sections and found largely excellent programs in progress—and wish to commend the originators and those who participate in this work and encourage its continuation.

I move that this report be accepted as read.

(Motion seconded by many, put to vote, and carried.)

MEDICAL EDUCATION AND HOSPITALS

The following matters were referred to the Reference Committee on Medical Education and Hospitals. All reports will be found on the pages indicated in the September, 1962, Vol. 55, No. 9, *Journal* of the Indiana State Medical Association. Resolutions introduced before the house and referred to this committee are printed herewith.

Student Loan Committee (page 1436)

Commission on Medical Education and Licensure (pages 1452-1456)

Commission on Special Activities (pages 1456-1457)

Resolution No. 2—Incorporation of One or Two Years of Practice in Small Communities into Intern and Residency Programs

Resolution No. 7—Training Programs in the Field of General Practice

REFERENCE COMMITTEE ACTION

Dr. Earl W. Mericle, chairman, presented the following report:

The reference committee read and discussed all phases of the Student Loan Committee report and recommends acceptance of the report as written and wishes to commend the committee for the completeness of their report.

Your reference committee wishes to recommend that the loanee be encouraged to repay the loan as soon as possible and that he be encouraged to borrow money from a bank at a reasonable interest rate to repay same, thus making more money available to the committee for applicants, and further, that the present plan of operation of the Student Loan Fund be continued on the local level as in the past, feeling that in so doing it would keep the physician-student relationship at the local level.

Your committee wishes to thank Mr. Miller of the Indiana National Bank and the many others who appeared before it for their valuable recommendations.

Mr. President, I move the adoption of this section of the report.

(Motion seconded by many, put to vote, and carried.)

Medical Education

Your reference committee then read and discussed the report of the Commission on Medical Education and Licensure and wishes to commend the commission on the thoroughness of the report and wishes to recommend, after discussion of the Science Fair which was mentioned on two occasions, that the Commission on Medical Education and Licensure and the Council of the Indiana State Medical Association meet and discuss their differences.

(1) Your reference committee therefore recommends that they meet and arrive at a common solution.

Mr. President, I move adoption of this section of the report.

(Motion seconded by many, put to vote, and carried.)

Your reference committee wishes to commend Dr. Ralph Eades for his untiring efforts in behalf of the Science Fair and the fine work of his committee.

(2) We further recommend that the Council of the Indiana State Medical Association reconsider actively supporting the Science Fair because of national interest in the Science Fair.

Mr. President, I move the adoption of this portion of the report.

(Motion seconded by many, put to vote, and carried.)

Special Activities

Your reference committee then read and discussed the report of the Commission on Special Activities and wishes to commend the Commission on their fine work and especially to recommend the continued support of the Medical Explorer Posts.

Mr. President, I move the adoption of this portion of the report.

(Motion seconded by many, put to vote, and carried.)

Resolution No. 2

Introduced by: JAY COUNTY MEDICAL SOCIETY

Subject: INCORPORATION OF ONE OR TWO YEARS OF PRACTICE IN SMALL COMMUNITIES INTO INTERN AND RESIDENCY PROGRAMS

RESOLVED:

That the Indiana State Medical Society should consult or plan with the Indiana University School of Medicine to incorporate one or two years of practice in small communities into their internship and residency programs. The variety of medical problems encountered would be invaluable whether the graduate intended to become a specialist or a general practitioner.

The following reasons for submitting this resolution are:

1. It is becoming increasingly difficult to attract interns or residents to small communities. These areas offer much in experience, in remuneration, and in assisting young doctors to gain in civic and social stature.
2. It should be possible to offer these graduates sufficient salary for combined sources (i.e. university scholarships, state and local medical society educational funds) so that they would be quite willing to participate in this program.
3. Many small communities do not have sufficient doctors to serve them. Those few doctors would welcome such assistance. There will always be a requirement for general practitioners in rural areas. If we are to improve medical care for the general population, it would be well to establish a rotating service to these areas. This rotation service could include a specified time with a surgeon, pediatrician, or with the general practitioner doing obstetrics, office work, house or hospital calls.
4. This approach to the "grass roots" medical practice would be a strong force in combating socialized medicine. Each doctor who serves perhaps several thousand patients yearly can exert much more political influence because of his contribution both professionally and as a responsible citizen.
5. The demands on the general practitioner are numerous but the personal satisfaction that comes with such demands is rarely found elsewhere. If the young doctor concludes his rotating community service and still wishes to continue a residency, he would be encouraged to do so. He would return to his hospital service with confidence and with more awareness of all the factors that influence the patient who is ill or injured.

Several other states have instituted such a training program. We believe this system would be of great benefit to the graduate, to the people in rural areas, and to the doctor in general practice.

REFERENCE COMMITTEE ACTION

Dr. Earl W. Mericle, chairman, presented the following report:

The next item for discussion was resolution No. 2, which reads as follows:

"RESOLVED: That the Indiana State Medical Society should consult or plan with the Indiana University School of Medicine to incorporate one or two years of practice in small communities into their internship and residency programs. The variety of medical problems encountered would be invaluable whether the graduate intended to become a specialist or a general practitioner."

Your reference committee accepts the resolution as written in principle but wishes to recommend to the ISMA House of Delegates that our delegates to the AMA be instructed to recommend to that body that two years in general practice be required before a physician be accepted for a residency in a specialty and that he be given one (1) year credit towards this board accreditation for the two years he has served in general practice. In discussion before the committee it was brought out that the local community demands for physicians are made to the ISMA which is vitally concerned with the solution and that the above recommendations would help solve this problem. Historically and of future concern this problem has always been one of organized medicine.

Mr. President, I move adoption of this portion of the report.

(Motion seconded by many, put to vote, and carried.)

Resolution No. 7

Introduced by: THE FORT WAYNE (ALLEN COUNTY) MEDICAL SOCIETY

Subject: TRAINING PROGRAMS IN THE FIELD OF GENERAL PRACTICE

WHEREAS, the Executive Faculty Committee of the Indiana University School of Medicine has changed the internship program from rotating to straight, effective this past July 1, 1962; and

WHEREAS, the tax supported Indiana University School of Medicine, at the present time, has no effective program to provide family physicians for the State of Indiana; now therefore

BE IT RESOLVED, that the Faculty Executive Committee be contacted by the Executive Committee of the Indiana State Medical Association to

arrange for suitable internships and residency training programs in the field of general practice so that we may provide adequate family physicians in the State of Indiana.

REFERENCE COMMITTEE ACTION

Dr. Earl W. Mericle, chairman, presented the following report:

The next item for discussion was Resolution No. 7.

Your reference committee endorses this resolution wholeheartedly and wishes to point out the present existing situation, that the need for the GP is chaotic in many Indiana communities.

The tendency is reflected by the fact that other systems of the healing art are taking over the practice of medicine in many communities and the continued practice of straight internships further depletes the potential of supplying these communities with badly needed general practitioners.

Mr. President, I move the adoption of this portion of the report.

(Motion seconded by many.)

(Discussed by Drs. Robert A. Hedgcock and Wilson L. Dalton. **Dr. Dalton's motion to amend the report "that a copy of this resolution be sent to the individual Board members of the Board of Trustees of Indiana University and to the members of the Budget Committee of the Indiana State Legislature," was seconded by Dr. Rang and many others, put to vote, and carried.)**

Dr. Burton Kintner and Dr. Frank Green moved that this portion of the report be accepted as amended.

(Motion seconded, put to vote, and carried.)

Dr. Mericle continued with the report of the Reference Committee on Medical Education and Hospitals:

Mr. President, I move the adoption of the report as a whole, as amended.

(Motion seconded by many, put to vote, and carried.)

The committee wishes to thank those who came before us to help us in our deliberations.

LEGISLATION

The following matters were referred to the Reference Committee on Legislation. All reports will be found on the pages indicated in the September, 1962, Vol. 55, No. 9, *Journal* of the Indiana State Medical Association. Resolutions introduced before the House and referred to this Committee are printed herewith.

Commission on Legislation (pages 1437-38)
Resolution No. 6—Legislation to Establish Standards of Quality for Optical Lenses
Resolution No. 8—Kerr-Mills Implementation in Indiana
Resolution No. 9—Corporate Practice of Medicine
Resolution No. 10—Transfer of Township Trustee Medical Aid Program to Department of Public Welfare
Resolution No. 11—Physicians as Members of City and County Hospital Governing Boards
Resolution No. 13—Amendment of Present State Insurance Regulations
Resolution No. 14—Implementation of Kerr-Mills
Resolution No. 15—Corporate Practice of Medicine
Resolution No. 16—Budget Appropriation for Activation of Forensic Science Commission of Indiana
Resolution No. 17—Amendments to State Coroner's Law

REFERENCE COMMITTEE ACTION

Dr. Eugene F. Senseny, chairman, presented the following report:

First considered was the report of the Commission on Legislation. We recommend approval of this very fine report.

Mr. President, I so move.

(Motion seconded by many, put to vote, and carried.)

Resolution No. 6

Introduced by: ST. JOSEPH COUNTY MEDICAL SOCIETY
Subject: LEGISLATION TO ESTABLISH STANDARDS OF QUALITY FOR OPTICAL LENSES

WHEREAS, at the present time, there are no legislative required standards for the quality of optical glass nor optical lenses in the State of Indiana, and

WHEREAS, many times inferior quality glass is used for optical lenses because there are no standards of control, and

WHEREAS, it is difficult for ophthalmologists and optometrists to determine inferior optical lenses without specialized equipment, and

WHEREAS, the people of Indiana are, in most instances paying for and are entitled to receive first quality optical lenses which without proper standards adequately controlled may not be true, and

WHEREAS, in order to protect the public it is essential that standards of quality for optical lenses be established by legislative action,

NOW, THEREFORE BE IT RESOLVED: That the St. Joseph County Medical Society go on record as favoring legislation in the State of Indiana which will establish a standard of quality for optical lenses, and

BE IT FURTHER RESOLVED: That a copy of this resolution be presented by the delegates of the St. Joseph County Medical Society to the Indiana State Medical Association House of Delegates at their 1962 Annual Meeting with the recommendation that the Indiana State Medical Association present a standardization of optical lenses bill to the next session of the Indiana State Legislature, and

BE IT FURTHER RESOLVED: That the Indi-

ana State Medical Association be urged to take every step possible to get such legislation approved.

REFERENCE COMMITTEE ACTION

Dr. Eugene F. Senseny, chairman, presented the following report:

Resolution No. 6. Your reference committee is of the opinion this is a matter of national scope and is currently being approached as such by the respective national organizations, which we believe is the best way to solve this problem. Therefore, inasmuch as we understand work is already being done at the national level on this problem, your committee recommends this resolution not be adopted.

Mr. President, I so move.

(Motion seconded by many.)

Discussed by Drs. David L. Dunlap, Frank Green, J. B. Burcham and T. Neal Petry.

(Following a division of the House, this section of the report of the Reference Committee on Legislation was adopted as read 52 to 45.)

Resolution No. 8

Introduced by: LAKE COUNTY MEDICAL SOCIETY

Subject: KERR-MILLS IMPLEMENTATION IN INDIANA

WHEREAS: Much of medicine's successful fight against the King-Anderson Bill in Congress was waged with the declaration that the existing Kerr-Mills law is a better solution to the problem of medical care for the aged, and

WHEREAS: The 1961 session of the Indiana General Assembly surrounded the eligibility for assistance under the Kerr-Mills law with such rigid limitations that only a few people are able to qualify, leaving many others unable to qualify, but equally in need of assistance, and

WHEREAS: Such failure in Indiana gives support to those in Washington who promote legislation of the King-Anderson type, and deprives medicine of one of its best arguments in opposing it.

NOW, THEREFORE, BE IT RESOLVED: That the House of Delegates of the Indiana State Medical Association instructs the Commissions on Aging and Legislation to endeavor during the 1963 session of the Indiana General Assembly to obtain legislation broadening the eligibility requirements for old age medical assistance in keeping with the intent of the Kerr-Mills federal law, and

BE IT FURTHER RESOLVED: That the commissions seek support of such groups as Chambers of Commerce, Senior Citizens' organizations, labor unions and welfare groups in obtaining passage of this legislation.

Resolution No. 14

Introduced by: VANDERBURGH COUNTY MEDICAL SOCIETY

Subject: IMPLEMENTATION OF KERR-MILLS

WHEREAS: The American Medical Association has advocated the use of the Kerr-Mills legislation in helping people in need to meet their medical expenses; and

WHEREAS: Dr. Edward Annis has publicly broadcast on television that American physicians favor Kerr-Mills, and

WHEREAS: The speaker's bureau of the Vanderburgh County Medical Society has repeatedly advocated Kerr-Mills program in speaking before many civic groups; and

WHEREAS: The State of Indiana has not yet fully implemented the Kerr-Mills act; now therefore be it

RESOLVED that the Vanderburgh County Medical Society urges the Indiana State Medical Association to propose and advocate legislation to fully implement the Kerr-Mills Act; such legislative proposal to be made to the 1963 session of the Indiana State Legislature.

REFERENCE COMMITTEE ACTION

Dr. Eugene F. Senseny, chairman, presented the following report:

Resolutions Nos. 8 and 14. Because of the similarity of these two resolutions your committee considered them jointly. The wealth of testimony offered was in favor of support of the Kerr-Mills law in the State of Indiana. Your reference committee recommends that this house reaffirm its previous actions of assuring all of the highest quality of medical care regardless of the ability to pay. We further believe the Kerr-Mills law would augment Indiana's existing programs providing for those in need. Your committee further recommends that this association reaffirm its opposition to the Social Security approach as a means of providing this care. Therefore the committee recommends adoption of resolutions 8 and 14.

Mr. President, I so move.

(Motion seconded by many, discussed by Drs. Robert A. Hedgcock and Senseny, put to vote, and carried.)

Resolution No. 9

Introduced by: LAKE COUNTY MEDICAL SOCIETY

Subject: CORPORATE PRACTICE OF MEDICINE

WHEREAS: The practice of medicine in the State of Indiana is presently limited by law to the individual proprietorship or partnership entities, and

WHEREAS: The practice of medicine under a corporate legal entity would offer substantial economic benefits to physicians and surgeons choosing voluntarily to practice under this type of business entity, and

WHEREAS: The possible benefits include: (1) a pension plan, (2) a profit-sharing plan, (3) group life insurance, (4) accident and health insurance, (5) tax free "salary" while the physician may be unable to work because of illness or injury,

(6) $5,000.00 tax free death benefit for the physician's widow, and

WHEREAS: On December 5, 1957 a resolution of the House of Delegates of the American Medical Association on group practice affirmed that it is within the limits of ethical propriety for physicians to join together as partnerships, associations or other lawful groups, provided that the ownership and management of the affairs thereof remain in the hands of licensed physicians, and

WHEREAS: Legislation passed in over twenty (20) of the United States permits the practice of medicine in the corporate form of business entity and proposed legislation for the State of Indiana would permit that the ownership and management of the affairs of such corporation would remain in the hands of licensed physicians,

NOW, THEREFORE, BE IT RESOLVED: That the House of Delegates of the Indiana State Medical Association hereby endorse and go on record as supporting legislation to be introduced in the 1963 session of the General Assembly of the State of Indiana which would permit the practice of medicine under the corporate form of business entity.

Resolution No. 15

Introduced by: VANDERBURGH COUNTY MEDICAL SOCIETY

Subject: CORPORATE PRACTICE OF MEDICINE

WHEREAS, the practice of medicine in the State of Indiana is presently limited by law to the individual proprietorship or partnership entities; and

WHEREAS, the practice of medicine under a corporate legal entity would offer substantial economic benefits to physicians and surgeons choosing voluntarily to practice under this type of business entity; and

WHEREAS, the possible benefits include: (1) a pension plan, (2) a profit sharing plan, (3) group life insurance, (4) accident and health insurance, (5) tax free "salary" while the physician may be unable to work because of illness or injury, (6) $5,000.00 tax free death benefit for the physician's widow; and

WHEREAS, on December 5, 1957, a resolution of the House of Delegates of the American Medical Association on group practice affirmed that it is within the limits of ethical propriety for physicians to join together as partnerships, associations or other lawful groups, provided that the ownership and management of the affairs thereof remain in the hands of licensed physicians; and

WHEREAS, legislation passed in over twenty (20) of the United States permits the practice of medicine in the corporate form of business entity and proposed legislation for the State of Indiana would permit that the ownership and management of the affairs of such corporation would remain in the hands of licensed physicians;

NOW, THEREFORE, BE IT RESOLVED: "That the Vanderburgh County Medical Society approves such legislation and urges the House of Delegates of the Indiana State Medical Association to endorse and go on record as supporting legislation to be introduced in the 1963 session of the General Assembly of the State of Indiana which would permit the practice of medicine under the corporate form of business entity."

REFERENCE COMMITTEE ACTION

Dr. Eugene F. Senseny, chairman, presented the following report:

Resolutions Nos. 9 and 15. Your committee again combined these two resolutions because of their almost identical content. Much testimony was heard, the majority being definitely in favor of this type of permissive legislation. We would approve support of such legislation to assist those individuals and groups, providing such contains appropriate safeguards.

These safeguards would be to limit membership to those individuals holding a degree of doctor of medicine or bachelor of medicine, residing and holding a valid license for the unlimited practice of medicine and surgery in the State of Indiana. Also, there should be no conflict with the Principles of Medical Ethics. After appropriate review and testimony and facts we recommend this Association support this type of legislation. Therefore your committee recommends adoption of resolutions 9 and 15.

Mr. President, I so move.

(Motion seconded by many, put to vote, and carried.)

Resolution No. 10

Introduced by: LAKE COUNTY MEDICAL SOCIETY

Subject: TRANSFER OF TOWNSHIP TRUSTEE MEDICAL AID PROGRAM TO DEPARTMENT OF PUBLIC WELFARE

WHEREAS: The medical program administered by the Department of Public Welfare has, in nearly all Indiana counties, been administered with the close cooperation, and under the supervision of the medical profession, and at a reasonable tax cost for the results obtained in caring for the medically indigent, and

WHEREAS: The administration of medical aid under many township trustee offices has frequently been arbitrary, indifferent, expensive, politically motivated and only rarely under the supervision of the medical profession,

NOW, THEREFORE, BE IT RESOLVED: That the House of Delegates of the Indiana State Medical Association instruct the Commission on Legislation to introduce and support necessary legislation in the 1963 Indiana General Assembly to transfer the jurisdiction of all tax supported indigent medical aid programs to the Indiana and various county Departments of Public Welfare.

REFERENCE COMMITTEE ACTION

Dr. Eugene F. Senseny, chairman, presented the following report:

Resolution No. 10. Your committee having heard testimony both pro and con on this resolution, is of the opinion there is no consistent statewide experience in this regard. In one instance the trustee system is working very effectively, while in another area the Department of Public Welfare is doing a more efficient job. The weight of testimony presented to this committee does not lead us to believe that passage of legislation would benefit those individuals most concerned, namely, the recipients and the taxpayers. Therefore, your committee recommends that this resolution not be adopted.

Mr. President, I so move.

(Motion seconded by many, put to vote, and carried.)

Resolution No. 11

Introduced by: PORTER COUNTY MEDICAL SOCIETY

Subject: PHYSICIANS AS MEMBERS OF CITY AND COUNTY HOSPITAL GOVERNING BOARDS

WHEREAS, certain laws relating to city and county hospitals prohibit physicians being members of the governing boards of such hospitals, and

WHEREAS, medical hospital services are becoming more and more complex, and the use of such services by the public is becoming constantly greater, and

WHEREAS, the need for professional medical opinion in the interpretation of these problems is becoming more and more evident,

BE IT THEREFORE RESOLVED: That the laws of Indiana pertaining to city and county hospitals which prohibit physicians being members of the governing boards thereof be amended to permit a physician, or physicians, as members of such boards.

BE IT FURTHER RESOLVED: That the Indiana State Medical Association go on record of favoring such legislation and through proper channels take action commensurate with the association's legislative program.

REFERENCE COMMITTEE ACTION

Dr. Eugene F. Senseny, chairman, presented the following report:

Resolution No. 11. The association has been attempting to implement this resolution concerning physicians as members of city and county hospital governing boards at each session of the Legislature. We recommend that this resolution be adopted.

Mr. President, I so move.

(Motion seconded by many, put to vote, and carried.)

Resolution No. 13

Introduced by: OWEN-MONROE COUNTY MEDICAL SOCIETY

Subject: AMENDMENT OF PRESENT STATE INSURANCE REGULATIONS

WHEREAS, the Indiana State Medical Association is vitally interested in the preservation of the free enterprise private type of medical insurance in contrast to that which is advocated by the Federal Government;

BE IT RESOLVED: That the Indiana State Medical Association recommend to the Indiana General Assembly that they amend the present insurance regulations of the State of Indiana to exclude the sale of any hospitalization or medical insurance that is not of the non-cancellable type with the exception of that which is sold to large groups where if one (1) policy is cancellable the whole group would be cancellable.

REFERENCE COMMITTEE ACTION

Dr. Eugene F. Senseny, chairman, presented the following report:

Resolution No. 13. Your committee gave a great deal of consideration to this resolution and discussed this with legal counsel, and we came to the conclusion that the problem outlined in this resolution is not within the province of organized medicine. Therefore, your committee recommends that this resolution not be adopted.

Mr. President, I so move.

(Motion seconded by many, put to vote, and carried.)

Resolution No. 16

Introduced by: MARION COUNTY MEDICAL SOCIETY

Subject: A RESOLUTION FOR THE SUPPORT OF THE INDIANA LEGISLATIVE APPROPRIATION OF FUNDS TO ACTIVATE THE FORENSIC SCIENCE COMMISSION OF INDIANA

WHEREAS, a Commission on Forensic Sciences for the State of Indiana has been legally in existence since its establishment by the Legislature (Acts of 1959, Chapter 361), and

WHEREAS, this commission has as its primary objectives to promote in the State of Indiana scientific information and services in pathology, immunology, radiology, photography, psychiatry, dentistry, anthropology, and other forensic sciences, and

WHEREAS, the commission has powers to establish and maintain a scientific laboratory for research and experimentation, and to appoint an administrative director who shall be a physician and should be a pathologist certified by the American Board of Pathology, and to engage in the various activities outlined by the law, and

WHEREAS, no appropriation of funds has been made by the legislature since the original acts, and

WHEREAS, the people of Indiana, and the law enforcement agencies and coroners and courts of Indiana would greatly benefit by the activities of this commission, therefore:

BE IT RESOLVED: That the members of the House of Delegates and all members of the Indiana State Medical Association support adequate budgetary appropriations by the 1963 Indiana Legislature to so activate the Commission on Forensic Sciences, and

BE IT FURTHER RESOLVED: That this resolution be imprinted and delivered to the appropriate Committee of the Legislature to express the support of the physicians of Indiana for this cause, if feasible.

REFERENCE COMMITTEE ACTION

Dr. Eugene F. Senseny, chairman, presented the following report:

Resolution No. 16. This resolution was considered by your committee who feels this is a means to provide funds for a good law already in existence. Those who discussed this resolution were highly in favor of its adoption. Therefore, your reference committee recommends that Resolution 16 be adopted.

Mr. President, I so move.

(Motion seconded by many, put to vote, and carried.)

Resolution No. 17

Introduced by: MARION COUNTY MEDICAL SOCIETY

Subject: AMENDMENTS TO STATE CORONER'S LAW

WHEREAS, a study committee appointed by the legislature has prepared amendments to the state coroner's law which if passed will enable the coroners to make a more complete investigation in sudden and unexpected deaths including the authority to order autopsies, now

BE IT THEREFORE RESOLVED: That the House of Delegates of the Indiana State Medical Association go on record as favoring these amendments.

REFERENCE COMMITTEE ACTION

Dr. Eugene F. Senseny, chairman, presented the following report:

Resolution No. 17. Testimony was heard on this resolution and those speaking in its behalf amplified the intent of this resolution in more detail. The reference committee feels that Section 1, Paragraph C, lines 15 through 20 of the bill should be deleted because this is rather impractical on a statewide basis. We therefore offer the following amendment to the resolution:

"Whenever any coroner under this act deems it necessary in the discharge of his duties to have an autopsy performed he shall employ a physician holding an unlimited license to practice medicine and surgery, to perform such an autopsy. Such a physician shall be paid from the county treasury a fee of not less than $50.00."

Mr. President, I move the adoption of this amendment.

(Motion seconded by many, put to vote, and carried.)

Mr. President, the committee approves the resolution as amended and recommends its adoption, and I so move.

(Motion seconded by many, put to vote, and carried.)

Mr. President, I move adoption of this report as a whole.

(Motion seconded by many, put to vote, and carried.)

I would like to thank my committee for their diligence in handling the large volume of work referred to this reference committee, namely, Drs. J. B. Burcham, T. Neal Petry, Donald R. LaFollette, and Charles Y. Knowles.

PUBLIC RELATIONS

The following matters were referred to the Reference Committee on Public Relations. All reports will be found on the pages indicated in the September, 1962, Vol. 55, No. 9, *Journal* of the Indiana State Medical Association. Resolutions introduced before the house and referred to this committee are printed herewith.

Grievance Committee (pages 1435-36)

Commission on Public Information (pages 1438-39)

Resolution No. 3—Immunization of All Children Five Years of Age or Younger Free of Charge

Resolution No. 4—The Better Use of Confidential Medical Communication Channels in the Interest of Public Relations and Medical Discipline

Resolution No. 3

Introduced by: TIPPECANOE COUNTY MEDICAL SOCIETY

Subject: IMMUNIZATION OF ALL CHILDREN FIVE YEARS OF AGE OR YOUNGER FREE OF CHARGE

WHEREAS: Dr. F. J. L. Blasingame was quoted in the public press as stating in a telegram to Representative Oren Harris and speaking as the Executive Vice-President of the AMA stated, "the association indorses 'in principle' HR 10541, an administration sponsored bill to provide immunization against communicable diseases to all children five years of age or younger without cost," and

WHEREAS: This principle is in direct opposition to the previously expressed policy of the AMA to provide such services for those in need, and

WHEREAS: If this principle is followed, it will lead to chaos in the realm of good immunization procedure, it will be inimical to the best standards of medical practice, and it will necessarily promote the intervention of health departments into the

practice of medicine and will interpose such departments between the patient and the physician, and

WHEREAS: This action was taken without consultation with the House of Delegates of the AMA (which would be readily available in June 1962) but with the presumed approval of the board of trustees of the AMA, and

WHEREAS: It has been the time honored principle of doctors of medicine to provide these services without cost to those in need, and

WHEREAS: The current system of providing immunizations by the medical profession has satisfactorily immunized a large segment of the population to a point that preventable communicable disease has reached an extremely low rate;

THEREFORE, BE IT RESOLVED: That the Tippecanoe County Medical Society goes on record as stating that it does NOT approve the action of Dr. F. J. L. Blasingame, speaking as a representative of the medical profession even with the presumed approval of the board of trustees of the AMA (and it is the feeling of the members of this society that most members of the AMA likewise do not approve such action), and

BE IT FURTHER RESOLVED: That the Tippecanoe County Medical Society expresses its opposition to HR 10541 and requests other societies to study this problem and express their opinions to the ISMA and to the AMA, and

FURTHER BE IT RESOLVED: That the Indiana delegates to the House of Delegates of the AMA be instructed to introduce a resolution objecting to the arbitrary statement made by Dr. F. J. L. Blasingame and those who approved such an authoritative, bureaucratic statement in the name of the AMA members, and further that these individuals be censured by the House of Delegates for such action, and

BE IT FURTHER RESOLVED: That this resolution be presented at the next meeting of the House of Delegates of the ISMA.

REFERENCE COMMITTEE ACTION

Dr. T. D. Armstrong, chairman, presented the following report:

The committee first considered Resolution No. 3 which seemed to include two principles. First, our official was probably misquoted in his statement to the public press. Naturally, statements should not be made prematurely as a representative of the AMA on controversial matters unless sure that it is established policy.

Second is the principle of immunization. We feel that we should continue to be opposed to Federal government control of and practice of medicine. We should continue free immunization of indigent and low income families by the physicians on a local level.

Mr. President, I move that the first part of this resolution be referred to the Commission on Public Information and the second part to the Commission on Public Health for consideration and recommendation of any change in our present policy on immunization.

Mr. President, I move that this section of the report be adopted.

(Motion seconded by many, put to vote, and carried.)

Resolution No. 4

Introduced by: GRIEVANCE COMMITTEE

Subject: THE BETTER USE OF CONFIDENTIAL MEDICAL COMMUNICATION CHANNELS IN THE INTEREST OF PUBLIC RELATIONS AND MEDICAL DISCIPLINE

WHEREAS, the Grievance Committee of the Indiana State Medical Association recognizes the increasing responsibility of its public relations function and interprets this function as best discharged by fostering conditions which favor the personal resolution of patient complaints by the physician against whom the complaint is lodged, and

WHEREAS, should the conflict between the patient and the physician not be thus resolved the Grievance Committee routinely requests the appropriate county medical society to attempt adjudication, and

WHEREAS, only after these steps have failed or been waived does the Grievance Committee of the ISMA proceed with adjudication efforts, and

WHEREAS, it is accordingly imperative that the Grievance Committee be kept informed of the facts of county medical society discipline that it may proceed with prudence in behalf of both the patient and the physician;

THEREFORE, BE IT RESOLVED, that the secretary of each county medical society shall, after December 31, 1962, mail to the chairman of the Indiana State Medical Association Grievance Committee a confidential full report within ten (10) days following any official action of the county medical society which directs that one or more of its members be: 1) censured, 2) suspended or 3) expelled from membership. Failure to file such a report within the specified time shall be reported by the chairman of the Indiana State Medical Association Grievance Committee to the Council for such action as it may deem appropriate.

REFERENCE COMMITTEE ACTION

Dr. T. D. Armstrong, chairman, presented the following report:

Next considered by our committee was Resolution No. 4. This committee approves this resolution and recommends its adoption.

Mr. President, I so move.

(Motion seconded by many, put to vote, and carried.)

The next item considered was the report of the Grievance Committee and we recommend that this

report be accepted and the committee be commended.

Mr. President, I so move.

(Motion seconded by many, put to vote, and carried.)

Next considered was the report of the Commission on Public Information.

The reference committee recommends that this commission be commended and the report be accepted.

Mr. President, I so move.

(Motion seconded by many, put to vote, and carried.)

Mr. President, I move the acceptance of this report as a whole.

(Motion seconded by many, put to vote, and carried.)

HYGIENE AND PUBLIC HEALTH

The following matters were referred to the Reference Committee on Hygiene and Public Health. All reports will be found on the pages indicated in the September, 1962, Vol. 55, No. 9, *Journal* of the Indiana State Medical Association.

Commission on Public Health (pages 1441-43), and the following supplementary report, presented by Dr. Gerald F. Kempf:

The Commission on Public Health was requested to study the advisability of the use of oral polio vaccine, and has had the last of its meetings to consider this subject, since the preparation of the original report.

The commission has adopted the following resolution, which we now present to the house for its consideration:

Resolution

WHEREAS, there seems to be at this time great uncertainty and conflicting reports regarding the use of live poliomyelitis vaccine for oral administration, particularly, as to its safety and efficiency, and

WHEREAS, no epidemic exists at this time, and

WHEREAS, the killed, injectible, polio virus (Salk vaccine) is available, and has been proven effective,

THEREFORE, BE IT RESOLVED, that the use of oral, living, poliomyelitis vaccine, not be recommended at this time.

Commission on Voluntary Health Agencies (pages 1443-49), and the following supplemental report, presented by Dr. Norman R. Booher, chairman:

Mr. President, members of this house: You will note that the printed report of this commission is quite lengthy and is printed on pages 160-74 of your handbook. This was done by design, and no apologies are offered. The reason for this is simply that this is a new, untried field, relatively speaking, for this association, and it was felt by your commission on this subject that the more details brought to your attention in this way, the better and more effective our work could become. The supplemental report was made necessary by a subsequent meeting of the commission on September 9, after the report was written.

At this meeting the commission spent three hours discussing the mandate of the Council for the commission to draft a letter for the Council's approval, stating the objections found in the purposes and operations of the National Foundation.

Upon order of the Council, the commission, the association attorney, and the Executive Secretary, spent an additional three hours drafting this letter, which has now been submitted to the Council for its approval.

At this meeting an extensive discussion took place relative to the United Health Foundation, and further study is being devoted to this organization.

Finally, a number of voluntary health agencies, having submitted completed questionnaires, and having requested the approval of the Indiana State Medical Association were studied and action taken, as follows:

(1) The Indiana Society for Crippled Children and Adults, Inc., was approved.

(2) The Indianapolis Diabetes Association was approved.

(3) Approval of the Cancer Society of Elkhart County, Inc., was temporarily withheld, pending clarification of questions not completely answered in material submitted, notably contributions to the United Health Foundation.

(4) The Marion County Cancer Society was approved.

(5) The Evansville Epilepsy League, Inc., was approved.

(6) The Arthritis and Rheumatism Foundation was approved.

(7) The questionnaire submitted by the Indiana Association for Retarded Children was discussed, but decision on this organization was postponed pending further information.

(8) Aiding Leukemia Stricken American Children (ALSAC)—Danny Thomas—was neither approved, nor disapproved, but the suggestion was sent to this organization that it might attempt amalgamation with the National Leukemia group.

(9) The Social Health Association of Indianapolis and Marion County was tentatively approved on a temporary basis, pending submission of more complete answers to some questions.

(10) The Cancer Society of St. Joseph County was approved, and was advised that the commission feels that they might like to consider correlation of their research grants with the National Research Program, and that they should give greater attention to their administrative costs.

(11) The United Cerebral Palsy of Indiana, Inc. was considered and it was felt that numerous answers to their questionnaire were incomplete, and for this reason, any action on this association was postponed, pending further study by the commission member assigned to it.

(12) The City of Hope's completed questionnaire was considered and it was noted that by intent, or otherwise, that they did not desire approval of the Indiana State Medical Association. Feeling that this may have been a misinterpretation, the commission asked that inquiry be made as to whether or not this was their intent.

(13) The American Cancer Society, Indiana Division, was approved.

A further action of the commission was to ask consideration by the State Medical Association of the assignment of a staff person of the association to the commission to do some of the investigative work and detailed research that members of the commission would not have time to do, feeling that some one person should be charged with the responsibility of being thoroughly acquainted with all these agencies in their operations and to be able to keep the commission informed on a current basis of their activities.

On vote of the commission, the request was directed to the President of the association, asking that he facilitate the assignment of one of the field men to this commission to do this work.

Finally, in order to implement the work of this commission, as directed by this House of Delegates, the following resolution is submitted by the Commission on Voluntary Health Agencies to the House of Delegates for its consideration and approval, and if approved, to be forwarded to the American Medical Association for consideration at the next meeting of the House of Delegates of that Association.

Resolution

WHEREAS, the Commission on Voluntary Health Agencies of the Indiana State Medical Association, has for a period of three years been studying and investigating those voluntary health agencies which sought approval of their programs by said commission—that included in such study has been the study of the National Foundation, formerly the National Foundation for Infantile Paralysis. The result of this study discloses that the original purposes of said foundation, as organized in 1938, were as follows:

"1. To direct, unify, stimulate, coordinate and further the knowledge of, and the work being done on any and all phases of infantile paralysis, including study and research into the cause, nature and methods of prevention of the disease and the prevention of harmful after-effects of the disease."

That in 1958 the articles of said foundation were amended to delete the words, "for infantile paralysis" from their name and the following purposes were added:

"2. To initiate, promote, assist, encourage, develop, maintain, conduct and carry on, directly or indirectly, studies, investigations and research in any way relating to medicine and health and allied subjects, including the cause, prevention and treatment of disease.

"3. To initiate, promote, assist, encourage, develop, maintain, conduct and carry on, directly or indirectly, activities to increase the knowledge on all phases of any disease or diseases affecting human beings, including the nature and causes of any diseases and the methods of their prevention and treatment." and

WHEREAS, this investigation and study has raised two problems and questions, the first of which is whether the general public has been sufficiently advised and is sufficiently aware of the fact that said foundation is now using the funds raised for research into all phases of any disease, or diseases, affecting human beings, and the proportion of the amount of the funds raised devoted to poliomyelitis and the proportion of the funds raised which, under their articles, may be devoted to any research into any disease, including the cause, prevention and treatment thereof.

This also brought up the second question as to the efficacy of the work of a voluntary health agency when spread over all forms of human diseases, including those fields already occupied by long established, sound agencies operating in a particular field, with a definite program that is medically and scientifically established and acceptable, and

WHEREAS, The American Medical Association House of Delegates, in June, 1960, adopted a policy statement based upon the Tennessee Resolution, relative to medical advisory committees of local chapters of the National Foundation, but has taken no position in regard to the new programs of the foundation above referred to, and

WHEREAS, said new program of the foundation may result in overlapping and duplication of the work being done by such other presently established, sound voluntary health agencies, and the result and effect thereof should be considered by the American Medical Association and a position of policy in regard thereto be established;

BE IT THEREFORE NOW RESOLVED, that the House of Delegates of the American Medical Association be asked to refer said problem to the Division of Environmental Medicine of said association for further study by the Committee on Voluntary Health Agencies.

Maternal Mortality report for 1961. (Copy handed to each delegate).

Summary of actions taken by health officers and representatives of the State Medical Association at called emergency meeting of health officers, September 20, 1962, Indianapolis. (Copy handed to each delegate).

REFERENCE COMMITTEE ACTION

Dr. Frank Oliphant, chairman, presented the the following report:

The Reference Committee on Hygiene and Public Health met on Monday, October 8, and again on Tuesday, October 9, 1962. It wishes to thank the many members and officers who appeared before it for their participation and for the benefit of their views and additional information.

Its first consideration was the *Report of 1960 Maternal Deaths Studied by The Maternal Mortality Study Committee of the State Association.*

This study appears to be well done, and the reference committee commends those who made the study and report. It was felt that some data as to the actual nature of the death from infection would have been profitable to our membership, and the reference committee recommends this particularly to the attention of those who are continuing this study.

Mr. President, this committee approves the report of the Maternal Mortality Committee and recommends its adoption, and I do so move.

(Motion seconded by many, put to vote, and carried.)

Voluntary Health Agencies

The second matter considered by the reference committee was the report of the Commission on Voluntary Health Agencies, contained in the handbook on pages 160 to 174. The committee interviewed several members of the commission at length, and feels that the commission is to be commended for its diligent work and for the results they are obtaining.

Mr. President, this committee approves the report of the Commission on Voluntary Health Agencies, and recommends its adoption and I so move.

(Motion seconded by many, put to vote, and carried.)

The reference committee feels that the work of this commission would be assisted by the action of the various county societies in making appraisal from time to time of local fund raising activities in this field and the expenditures of it that they see on a local level, transmitting any useful information to the commission. The committee also wishes to encourage our membership to study any releases of actions by this commission for their guidance in dealing with their public.

Mr. President, I move the adoption of this portion of the report.

(Motion seconded by many, put to vote, and carried.)

The next consideration was of the volume of work which this commission has had to do in order properly to investigate and evaluate the many voluntary health agencies, recognizing that this picture is one of continuing change. If this commission is to continue the work now well started, it appears to your reference committee that the necessary field work in the way of meeting attendance and interviews may exceed in its demands the time the members of the commission may have available, and that already proper filing and file space of the data and material on each agency studied constitute an additional problem. Your reference committee wishes to recommend that filing facilities be made available at the Indianapolis headquarters, and that the Executive Committee consider whether the next budget can accommodate the inclusion of some payment for the type of help requested by the commission.

Mr. President, I move the adoption of this portion of this report.

(Motion seconded by many, put to vote, and carried.)

The next matter considered by the reference committee was Supplemental Report of the Commission on Voluntary Health Agencies. The reference committee approves of this report. Due to the changed aims of the former National Foundation for Infantile Paralysis and name change, it appears that our commission has found itself in particular difficulty in this instance, particularly as it raises a question of duplicating efforts in fields in which other large agencies have already been operating for some time. To this end the supplemental report asks the House of Delegates to approve of submitting a resolution to be passed upon by the House of Delegates of the American Medical Association, which if passed refers the problem to a similar committee of the national organization. The reference committee recognizes that this does not ask this house either to signify approval or disapproval of the National Foundation, but merely to submit the problem to our national organization for further study.

Mr. President, noting the above, this committee approves the Supplemental Report of the Commission on Voluntary Health Agencies, and recommends its adoption and I do so move.

(Motion seconded by many, put to vote, and carried.)

Public Health

The next matter considered by your reference committee was the report of the Commission on Public Health. The reference committee wishes to commend the care and diligence of the commission and its sub-committees.

The reference committee considered the report submitted by Committee on Industrial Practices and Program; Committee on Traffic Safety; Committee on Conservation of Hearing and Vision, and Committee on Rural Health and Physician Placement.

Mr. President, the reference committee approves these portions of the general report of this commission and recommends their adoption and I do so move.

(Motion seconded by many, put to vote, and carried.)

The next matter considered was the report of the Committee on Preventive Medicine and Liaison with the State Board of Health.

The report as submitted with regard to tuberculosis control and poison control appeared satisfactory and well done.

Mr. President, the committee approves these portions of the sub-committee's report and recommends their adoption, and I do so move.

(Motion seconded by many, put to vote, and carried.)

Next was considered the report of this Committee recommending that the resolution regarding Anti-Poliomyelitis Vaccine, adopted by the House of Delegates of the American Medical Association in December, 1961, be accepted and approved by the commission. This resolution recommended that these vaccination programs be left to the local level of the state and county societies. No information was received that our commission either approved or disapproved of this sub-committee's recommendation.

The reference committee, in this connection, considered the related supplemental report of the commission on public health, embodying a resolution regarding the administration of living vaccine, copies of which have been distributed to the delegates. In the wording as submitted to this committee, your reference committee did not favor the resolution.

Additionally, in the study by the committee of this same matter, a report by Dr. A. C. Offutt of a meeting of the state health officers with regard to the use of anti-poliomyelitis vaccine was considered, as well as a further study undertaken by members of your reference committee involving interviews with delegates from various counties, attendance at the meeting of the Section on Public Health and Preventive Medicine, at which time Dr. Langmuir of the U.S. Public Health Service and Dr. Albert Woeltjen of the Pfizer Laboratories spoke and were further questioned, and additional information was requested of Dr. A. C. Offutt following a meeting called by the surgeon general with the nation's state health officers in the last day or two.

After careful study of the evidence and testimony submitted, of the problems involved, including present programs now in progress, and of the will of the House of Delegates in similar matters before, your reference committee at the present offers the following:

1. The Supplemental Report of the Commission on Public Health be disapproved as submitted.

Mr. President, I move the adoption of this portion of the reference committee's report.

(Motion seconded, put to vote, and carried.)

2. That oral immunization programs presently in progress be completed, except that Type III oral vaccine be withheld from adults.

3. That new mass oral immunization programs are not encouraged, except in epidemics or special local situations.

Mr. President, I move the adoption of this portion of the reference committee's report.

(Motion seconded by many. Discussed by Drs. Donald LaFollette, P. J. Rosenbloom, Oliphant and Lowell W. Painter. **Dr. LaFollette's motion to amend item No. 2 to include "pending further information regarding this problem from the State Board of Health and the United States Public Health Service, was duly seconded, put to vote, and adopted.)**

Dr. Oliphant continued with the report of the Reference Committee on Hygiene and Public Health:

Mr. President, I move that this portion of the reference committee's report be accepted as amended by Dr. LaFollette.

(Motion seconded, put to vote, and carried.)

The chairman wishes to take the opportunity at this time sincerely to thank the members of this committee for the time and effort they have expended in the proper performance of its duties.

Mr. President, I move the adoption of this report of the reference committee as a whole as amended.

(Motion seconded by many, put to vote, and carried.)

AMENDMENTS TO CONSTITUTION AND BYLAWS

The following matters were referred to the Reference Committee on Amendments to Constitution and Bylaws. All reports will be found on the pages indicated in the September, 1962, Vol. 55, No. 9, *Journal* of the Indiana State Medical Association. Resolutions introduced before the house and referred to this committee are printed herewith.

Commission on Constitution and Bylaws (page 1437)

Resolution No. 1—To Amend Chapter IV; House of Delegates of the ISMA Bylaws

REFERENCE COMMITTEE ACTION

Dr. Guy A. Owsley, chairman, presented the following report:

The reference committee meeting was well attended by officers and others who discussed the matters referred to the committee. The reference committee makes the following recommendations:

Report of the Commission on Constitution and Bylaws

The first resolution of this report reads:

"BE IT RESOLVED, That the Commission on Constitution and Bylaws make a study of the Constitution and Bylaws of this association and prepare a codification thereof for presentation to the next regular meeting of the House of Delegates. That in preparing such codification such commission endeavor to prepare the same without material change in substance, and where there are ambiguities or possible inconsistencies, that it clarify and resolve the same as near as may be done in accordance with the way in which this matter is now being handled or interpreted."

Your reference committee agrees with the intent and the need for implementing this resolution but presents an amended "resolve" which reads as follows:

After the word "delegates" the words "or as soon thereafter as possible" are to be added, making this "resolve" read:

"BE IT RESOLVED, That the Commission on Constitution and Bylaws make a study of the

Constitution and Bylaws of this association and prepare a codification thereof for presentation to the next regular meeting of the House of Delegates *or as soon thereafter as possible.* That in preparing such codification such commission endeavor to prepare the same without material change in substance, and where there are ambiguities or possible inconsistencies, that it clarify and resolve the same as near as may be done in accordance with the way in which this matter is now being handled or interpreted."

We recommend that with this change this section of this report be adopted.

Mr. President, I so move.

(Motion seconded by many, put to vote, and carried.)

The next item considered in the report of the commission was a resolution calling for an amendment of Article IV, Section 2, of the Constitution, which reads as follows: (the words added are italicized)

"*Sec. 2. Active Members.* The active members of this association shall be the members of the component county medical societies, *who hold an unlimited license to practice medicine, which is in full force and effect; provided, however, that each is a citizen of the United States of America or has filed his declaration of intention to become a citizen and his first citizenship papers are in full force and effect. No person shall be qualified for membership in a county society who is not qualified for membership in the Indiana State Medical Association and* no county medical society shall grant active membership therein on a basis that does not include membership in the Indiana State Medical Association."

Even though this amendment will have to lay on the table for a year we recommend the adoption of this section of this report, and Mr. President, I so move.

(Motion seconded by many, put to vote, and carried.)

The next item considered was a recommendation of the commission that Chapter I, Section 3, of the Bylaws of the association be amended to read as follows: (words added are italicized)

"Sec. 3—*No person whose license to practice medicine has been suspended or revoked or* who is under sentence of suspension or expulsion from a component society, or whose name has been dropped from its roll of members, shall be entitled to any of the rights or benefits of this association or *of a component county society*, nor shall he be permitted to take part in any of *their* proceedings until he has been relieved of such disability."

Your reference committee recommends the adoption of this amendment as printed. Mr. President, I so move.

(Motion seconded by many, discussed by Dr. Wilson Dalton, put to vote, and carried.)

Resolution No. 1

Introduced by: MIAMI COUNTY MEDICAL SOCIETY

Subject: TO AMEND CHAPTER IV: HOUSE OF DELEGATES, OF THE ISMA BYLAWS

WHEREAS organized medicine should be a truly representative form of government; and

WHEREAS the delegates to the Indiana State Medical Association's House of Delegates are merely representatives of the constituent members of the various county medical societies; and

WHEREAS each member of the ISMA should have the right to know how his representative did, in fact, vote on issues of importance brought before the House of Delegates; and

WHEREAS under the existing system being used by the House of Delegates, in that oral or standing votes are not made as a matter of record how each member of the House of Delegates did, in fact, vote.

THEREFORE BE IT RESOLVED: that Chapter IV of the Bylaws of the ISMA be amended by adding a new Section 8 as follows:

Section 8: The FINAL vote on any issue calling for changes in dues or dues structure, changes in the Constitution and Bylaws or whenever a division of the house is called for, is required to be by an individually accountable vote, and each member's vote will be permanently recorded and published in *The Journal*, and no suspension of this rule will be allowed on the FINAL vote of such an issue. Voting in this manner will be done as with any division of the house except that the tellers will collect "aye" or "nay" ballots bearing the name and county of the voting delegate. Recording of the individual ballots may be done anytime after the actual voting has taken place but will be recorded for publication in the NEXT ISSUE of *The Journal.*

BE IT FURTHER RESOLVED THAT this resolution be formally introduced to the ISMA House of Delegates at their next annual convention at French Lick, Indiana in 1962 by the Miami County Delegate; but prior consideration by the ISMA Commission on Constitution and Bylaws should be given as officially ordered by vote of the annual 1961 meeting of the House of Delegates.

BE IT FURTHER RESOLVED THAT this resolution be published in the Convention Issue of *The Journal* in 1962 for the consideration of the membership-at-large in order that they may advise their delegate concerning this resolution.

REFERENCE COMMITTEE ACTION

Dr. Guy A. Owsley, chairman, presented the following report:

The next matter considered was Resolution No. 1. This resolution proposes to amend Chapter IV, Section 8, of the Bylaws to provide for roll call votes on certain matters coming before the house. This resolution was printed in your handbook on pages 79 and 80.

Your committee concurs with the intent of this

resolution but offers the following substitute amendment:

"THEREFORE BE IT RESOLVED: That Chapter IV of the Bylaws of the ISMA be amended by adding a new Section 8 as follows:

"The *final* vote on any issue calling for changes in dues or in dues structure or any changes in the Constitution and Bylaws shall be by roll call vote. Each member's vote shall be permanently recorded and published in *The Journal*," and no suspension of this rule will be allowed on the final vote of such an issue.

Mr. President, I move the adoption of this section of the report.

(Motion seconded by many.)

Dr. Paris as chairman of the Council, on behalf of the Council, moved that the five words "and published in *The Journal*" be deleted.

(Motion seconded by Dr. Rifner, put to vote, and carried.)

(Dr. Owsley's motion for adoption of this section of the report as amended was seconded, put to vote, and carried.)

I wish to thank the members of this committee for their assistance in reviewing the matters which came before this committee and for their diligence in preparing these recommendations.

Mr. President, I move that this report be adopted as a whole as amended.

(Motion seconded by many, put to vote, and carried.)

INSURANCE

The following matters were referred to the Reference Committee on Insurance. All reports will be found on the pages indicated in the September, 1962, Vol. 55, No. 9, *Journal* of the Indiana State Medical Association. Resolutions introduced before the house and referred to this committee are printed herewith.

Commission on Medical Economics and Insurance (pages 1450-51)

Report of Walter L. Portteus, M.D., president of Blue Shield.

Resolution No. 5—Blue Cross with Optional Blue Shield for Physicians and Dependents

Resolution No. 12—Transferral of the Means of Payment for All Physicians' Services from Blue Cross to Blue Shield

REFERENCE COMMITTEE ACTION

Dr. Wallace D. Buchanan, chairman, presented the following report:

Your reference committee met at 9:10 a.m., Monday, October 8, 1962 in Parlor A, French Lick-Sheraton Hotel. Members present were Drs. Wallace D. Buchanan, chairman, James H. Crawford, John W. Beeler, Joseph F. Ferrara, and Michael Shellhouse. Blue Cross and Blue Shield were represented by Mr. Guy Spring and Mr. Richard Kilbourne. Approximately 20 members of the Indiana State Medical Association participated in the discussions.

We appreciate the help, advice and suggestions of those who appeared before the committee.

Medical Economics and Insurance

Action:

Item No. 1. Report of the Commission on Medical Economics and Insurance. Your reference committee accepts the report of this commission for approval. Testimony before the committee would indicate that there is need to expand existing lists of accredited nursing homes and nursing services eligible for coverage by existing Blue Cross and Blue Shield plans. Present lists are small and represent only a small percentage of licensed nursing homes and nursing services.

Your reference committee is pleased to note the progress of the Joint Study Committee on the Economics of Modern Health Services which has been chaired by E. T. Edwards, M.D. We call attention to and approve the recommendation by this group that the Commission on Medical Economics and Insurance undertake a statewide study of the efficiency of patient care. This study to be done by local hospital staff utilization committees.

We urge the continuance of this committee as a useful forum for communication with other groups concerned in the health care field.

Mr. President, I move the adoption of this portion of the report.

(Motion seconded by many, put to vote, and carried.)

Item No. 2. Report on Blue Shield. Your reference committee accepts this report for approval and commends Dr. Walter Portteus for his dedicated service given in the health care field.

Mr. President, I move adoption of this section of the report.

(Motion seconded by many, put to vote, and carried.)

Resolution No. 5

Introduced by: TIPPECANOE COUNTY MEDICAL SOCIETY

Subject: BLUE CROSS WITH OPTIONAL BLUE SHIELD FOR PHYSICIANS AND DEPENDENTS

WHEREAS: It has been the time honored custom of the medical profession to treat physicians and their immediate families without charge, and

WHEREAS: This has helped to maintain a high ethical relationship between physicians, and

WHEREAS: The entrance of a third party (insurance) into the relationship has a strong tendency to disrupt the warm relationship and fellowship that exists in the medical profession; therefore

BE IT RESOLVED: That the Indiana State Medical Association request of Blue Cross and Blue Shield that a comprehensive Blue Cross policy be issued without an accompanying Blue Shield policy, if desired by the physicians, and

BE IT FURTHER RESOLVED: That the medical profession be encouraged to return to the prin-

ciples of professional courtesy as it was practiced in the past.

REFERENCE COMMITTEE ACTION

Dr. Wallace D. Buchanan, chairman, presented the following report:

Item No. 3. Resolution No. 5. Much discussion of this resolution took place. From comments, your reference committee believes that only a few areas and individuals are likely to desire coverage by Blue Cross alone. For these, two mechanisms are already available by which this can be accomplished. The first is by a three-fourths vote of any local county society; the second is by individual direct pay contract.

Majority opinion expressed before and within the reference committee indicates a desire on the part of physicians to provide a mechanism for the compensation of fellow physicians, particularly away from the home community.

Your reference committee therefore disapproves this resolution and recommends its rejection.

Mr. President, I so move.

(Motion seconded by many, put to vote, and carried.)

Resolution No. 12

Introduced by: THE MARION COUNTY MEDICAL SOCIETY

Subject: TRANSFERRAL OF THE MEANS OF PAYMENT FOR ALL PHYSICIANS' SERVICES FROM BLUE CROSS TO BLUE SHIELD

WHEREAS: Blue Cross and Blue Shield were initiated to serve two purposes; Blue Cross to pay for hospital services and Blue Shield to idemnify its members toward payment for physicians' professional services, and

WHEREAS: In the early formation of Blue Cross, charges for hospital-contractual physicians' services were paid by Blue Cross, and

WHEREAS: It was agreed in Indiana to change hospital-contractual physician payments from Blue Cross to Blue Shield as soon as Blue Shield was functioning, and

WHEREAS: This has not been done and hospital-contractual physicians' services are still being paid for as a part of hospital services; now therefore

BE IT RESOLVED: That this House of Delegates instruct its representatives on the Blue Shield board to accomplish as quickly as possible the transfer of the means of payment for all physicians' services from Blue Cross to Blue Shield.

REFERENCE COMMITTEE ACTION

Dr. Wallace D. Buchanan, chairman, presented the following report:

Item No. 4. Resolution No. 12. Your reference committee spent the greater portion of its time on this and related matters. The committee is aware of the passage of previous resolutions of a similar nature, the last in 1960. The failure of implementation is well explained in the report of the Commission on Medical Economics and Insurance. In spite of such resolutions Indiana hospitals and Blue Cross continue the sale of physicians' services for a fee.

Your reference committee believes firmly that a removal of physicians' services from Blue Cross coverage is in the best interests of medicine generally, affecting not only radiology and pathology, but all types of medical practice.

Your reference committee realizes that the transfer of services cannot be accomplished by the Blue Shield board alone. Therefore, we feel that this resolution should be directed not only to the Blue Shield board but also to the Blue Cross board, and the Indiana Hospital Association. These latter two groups have represented the chief obstruction to the accomplishment of this transfer in the past.

Your reference committee proposes to amend Resolution No. 12 as follows: "Add—Be it Further Resolved that the House of Delegates instruct its representatives on the Blue Cross board similarly, and that a copy of the resolution be sent to the Indiana Hospital Association."

Mr. President, I so move this amendment.

(Motion seconded by many.)

Dr. E. T. Edwards moved to amend the amendment to Resolution No. 12 as proposed by the Reference Committee on Insurance by deleting the words "and that a copy of the resolution be sent to the Indiana Hospital Association" and that the following be added:

"that a copy of the resolution be presented by an Ad Hoc Committee appointed by the ISMA president to the Indiana Hospital Association to more effectively achieve the objective of the resolution."

(Motion seconded by many.)

Dr. James W. Crain moved to amend Dr. Edwards' amendment to include "and that a copy of the resolution be sent to each member hospital."

(Motion seconded by Dr. Shields.)

On voting, the House adopted Dr. Edwards' amendment as amended.

On voting, this section of the report of the Reference Committee on Insurance as amended by Dr. Edwards and as amended further by Dr. Crain was adopted.

REFERENCE COMMITTEE ACTION

Dr. Buchanan continued with the report of the Reference Committee on Insurance.

Mr. President, I move the adoption of this report as a whole, as amended.

(Motion seconded by many, put to vote, and carried.)

I want to take this opportunity to thank the other members of the committee, Drs. Michael Shellhouse, Joseph F. Ferrara, John Beeler, and James H. Crawford. Thank you.

MISCELLANEOUS BUSINESS

The following matters were referred to the Reference Committee on Miscellaneous Business. All reports will be found on the pages indicated in the September, 1962, Vol. 55, No. 9, *Journal* of the Indiana State Medical Association, with the exception of the report of the building committee, the supplementary report of the Commission on Governmental Medical Services, and the Suggested Guide for State Joint Councils to Improve the Health Care of the Aged, which are printed herewith:

Commission on Convention Arrangements (no printed report)

Commission on Governmental Medical Services (pages 1439-41), and the following supplementary reports:

(1) Dr. Charles R. Alvey, chairman of the Commission on Governmental Medical Services:

Gentlemen, we have two items. One is for information only. This came to us after our report was written. In the report it states that a liaison committee has been appointed with the Department of Public Welfare, State of Indiana, and we were called upon to meet with them regarding a law which was passed in 1961 by the State Legislature. This is the Disabled Persons Act which will become effective January 1st, 1963. This is an act which establishes the Department of Public Welfare's right to provide care for all persons 18 years of age and over who are mentally or physically disabled to the degree where they require the aid of another person to care for them. This will provide up to $70.00 per month, plus medical care.

The requirements—the physician will be required to fill out an examination form on which he will state their disability. This will be in triplicate; the one copy he will keep, the other two will go to the department. This is then sent forward to the state department where it will be examined by the state supervising physician and a social worker, who will decide then on the final distribution. This is brought to your attention only for information, so you can carry it back to your local groups. Dr. Stimson, with your approval, I would like to call on Dr. Glen Lee, who has just returned from the Mental Health Congress at Chicago, held by the AMA Council.

(2) Dr. Glen Ward Lee:

As chairman of the Mental Health Committee of the Commission on Governmental Medical Services, I wish to report on the first Congress on Mental Illness and Health, conducted by the AMA in Chicago, the 4th, 5th and 6th of this month. This supplemental report is made necessary by the lateness of this meeting.

The congress was attended by over 2,000 physicians and conferees in allied fields interested in mental health and illness. Over half of those attending were physicians. There were 51 persons in attendance from Indiana.

There were two major purposes behind the AMA's Congress on Mental Health and Illness: 1, to further enunciate the new policy of the AMA regarding Mental Illness and Health as published in the handbook titled "Program of the AMA Council on Mental Health and 2, to place organized medicine in the position of leadership in this field.

The congress was conducted in the following manner: On Thursday afternoon, October 4, 21 topical conferences covering the major subjects listed in the "Program of the Council on Mental Health" were attended by individual representatives from the Indiana delegation. On Friday, October 5, the congress was divided into regional meetings, which we were to conduct ourselves. Our meeting was conducted by having each representative to a topical conference give a brief report on the considerations of his conference and the recommendations for future action which came from the conference. The subject was then opened for general discussion and acceptance or rejection of the recommendations, as they might pertain to the State of Indiana. There was extreme interest and universal participation in these discussions. Following the day long study of the reports from the 21 topical conferences, the steering committees from the Indiana State Medical Association, the two Indiana district branches of the American Psychiatric Association and the Indiana Mental Health Association, jointly wrote up a plan to implement the decisions of the congress, in Indiana, (which is a part of this report).

On Saturday morning, the program was continued by a panel discussion of the decisions of the congress for future action, and rebuttal. The intense interest in the congress was evident by the fact that over 75% of those attending the congress stayed for this final Saturday morning session.

The ISMA furnished a recorder to take down the recommendations for action and also a tape recorder to transcribe the full deliberations of the regional meeting on Friday. This was of tremendous help in monitoring the speakers.

Report of Steering Committees Attending First National Congress on Mental Illness and Health Sponsored by the AMA

I. Operational

1. The steering committees from the Indiana State Medical Association, the Mental Health Association of Indiana and the Indiana District Branch of the American Psychiatric Association and the Northern Indiana District Branch of the American Psychiatric Association will continue to act as a committee responsible for implementing principles and objectives gleaned from the First National Congress of the AMA on Mental Illness and Health and related sources.

2. The Indiana State Medical Association will assume the responsibility of leadership as a catalytic agent in furthering the implementation of

plans now in mind and to be developed in the future.

3. The physician is the first to diagnose and initiate treatment of mental illness and assumes medical responsibility for the patient.

II. Implementation

1. Awareness of importance of coordinated effort is essential. The joint steering committee assumes this responsibility in the State of Indiana. While there is much that needs to be done at the local level, the American Medical Association should concern itself too in vigorous efforts to improve coordination at the national level. Effective planning at the top level will have effects in local county medical societies and communities.

2. Undergraduate Training. The Indiana State Medical Association Committee should work through the admissions committee of the medical school to put more emphasis on courses in the undergraduate level in the humanities; even if it means less time on the physical sciences.

3. Intern and resident training programs should include some practical training in psychiatry.

4. Recommend publication of a handbook of information on community mental health services as a guide to all branches of medicine and to other groups working to start mental health clinics and other mental health services, as well as a guide to physicians who seek information for families who need counselling and other services.

5. Integration of Community Services. All physicians should be involved in mental health planning and programs.

6. There is a need to coordinate all mental health facilities including physicians, hospitals, and public and private agencies, the clergy and others.

7. This committee accepts the general principle that mental illness is the responsibility of all citizens but that the organization responsible for the development and maintenance of adequate facilities for care of the mentally ill be the county medical society's. Emergency hospitalization for the mentally ill should be provided in each community. The committee endorses the principle that all general hospitals admit mental patients.

8. Insurance programs need to be broadened. Blue Cross 30-day coverage for mental illness is insufficient and there should be allowed leaves of absence during such periods of hospitalization.

9. The steering committee recommends action to codify the Indiana Mental Health Statutes.

10. We commend the American Psychiatric Association for the publication of the data in the 15 Indices and urge the American Medical Association to collaborate with the American Psychiatric Association and other sources of essential information on mental health problems so that these surveys may be disseminated through the state medical associations.

11. Physicians representing state and local medical societies should serve on policy determining boards of community agencies and groups and the American Medical Association should encourage and stimulate this. State, local and national medical societies should, when the job warrants, be strengthened by skillful staff members who can assist the physician members in carrying their essential roles in coordination.

12. The following long range plans of the Indiana Commissioner for Mental Health has been reviewed and is deemed an excellent long range program guide which we will implement and support.

The Plan

1. *For the Mentally Ill in the State Hospitals:*
   a. Improve quality of treatment for all patients.
   b. Increase staffing and improve salary scales.
   c. Develop out-patient and follow-up services.
   d. Continue physical plant rehabilitation and replacement program.
   e. Release more patients on family care and through Old Age Assistance Program.
   f. Reduce the need for large mental hospitals.
2. *For the Mentally Retarded:*
   a. Expand facilities.
   b. Provide better care, treatment, and training.
   c. Continue relocation of Fort Wayne State School to new site.
   d. Construct new 200-bed hospital at Indiana University Medical Center.
   e. Establish a program of financial support for community services for the mentally retarded.
3. *For the Emotionally Disturbed Child:*
   a. Develop program of treatment for emotionally disturbed children in State hospitals.
   b. Construct residential treatment centers.
4. *For the Alcoholic Patient:*
   a. Increase number of clinics.
   b. Offer additional services to courts, hospitals, and other agencies.
   c. Expand educational program.
5. *Community Services:*
   a. Establish additional community psychiatric clinics.
   b. Establish centers for after-care for released mental patients.
   c. Coordinate state and local public and private agencies and services for more effective efforts to provide preventive measures, early recognition and evaluation, early treatment, and a broad scope of rehabilitation at the community level. Through these means, more patients will recover more quickly, and fewer will require state hospital care.
6. Appropriate funds for education and training.
7. Establish a state-financed research program in state mental hospitals.
8. Continue to cooperate with Indiana University School of Medicine and the state universities, and with other state agencies in all ways that would be mutually helpful.

13. The committee has considered the five major reports of the First Congress on Mental Health which will be given further study and consideration.

14. The involved problems of alcoholism and delinquency are illustrative of the need for medical leadership in the diagnosis and treatment of conditions in the mental health field.

15. The future value of this congress is dependent upon the implementation of the ideas and ideals so admirably expressed in the deliberations of this congress and this dynamic program should be brought to every medical society.

III. Funds for Further Operation of the Steering Committees

I had thought that it would be necessary to request funds from the Indiana State Medical Association to continue the implementation of this new coordinated mental health program. However, we have been advised by Dr. Stewart Ginsberg, Commissioner of Mental Health, that $50,000.00 is being allocated by the Federal government to each of the 50 states on a matching fund basis, the formula for which has not yet been announced. These funds are for the purpose of study and implementation of new health programs in the states and we understand when they become available after January 1, 1963 that a portion of these funds will be allocated to the joint steering committees to further their operation.

Commission on Inter-Professional Relations (page 1452)

Commission on Aging (Page 1457), and the following supplementary report concerning the Suggested Guide for State Joint Councils to Improve the Health Care of the Aged, presented by Dr. Maurice E. Glock, in the absence of Dr. Nathan L. Salon, chairman:

"With Dr. Stimson's permission, I am not going to read this. It is in your kit. It is a three-page report. It is a good report. I personally am very pleased with the work of this splendid commission. They have had only one full year of operation. They are doing a splendid job. You can read this at your leisure. To give you a little background on this,—the AMA has a joint council to improve the health care of the aged at the national level. Two or three years ago they requested this state to form such a state council. It was impossible to do this at the time because of lack of cooperation of the Indiana Hospital Association, through their executive secretary, Mr. TeKolste. Recently, through the efforts of our commission, the complexion of the matter has changed. They are most anxious and willing to cooperate and I feel that this suggested guide and this council which has been formed will be of tremendous help to us in the state in our attempt to regain a place of leadership in the field of aging."

Suggested Guide for State Joint Councils to Improve the Health Care of the Aged

1. **Purpose:**
   a. A State Joint Council to Improve the Health Care of the Aged, as its name implies, should assist the principal providers of health services in their efforts to improve health care of the aged.
   b. A state joint council should be a mechanism for:
      (1) Exchange of information on activities and plans of its members and other organizations active in the field of aging,
      (2) Coordination of related programs conducted by member organizations,
      (3) Development, where indicated, of jointly sponsored projects, and
      (4) Dissemination of information on health care of the aged to the public.
2. **Membership:**
   a. It is suggested that the joint council be composed of the state dental, hospital, medical, and nursing home associations. It is within the option of each joint council, of course, to include representation from other organizations whose major activity is directly concerned with health care.
   b. It is suggested that each member organization be represented by from two to four persons. If such organizations have a committee on aging, it would seem important that the chairman or a member of such committees serve as one of the representatives on the joint council. It would seem advisable that the chief administrative officer of each organization should also serve on the joint council.
   c. The importance of effective action in meeting the needs of the aged calls for selection of representatives who can:
      (1) Effectively speak for their own organizations and
      (2) Interpret joint council actions to them.
3. **Meeting:**
   The frequency of meetings will vary. With the possible exception of the summer months, however, monthly meetings are recommended, especially in the early stages of the joint council's work.
4. **Activities:**
   a. In keeping with the objectives of the national joint council, it is appropriate that each state joint council concern itself with:
      (1) Identifying and analyzing the health needs of the aged,
      (2) Appraising available health resources,
      (3) Fostering effective methods of payment for health care,
      (4) Developing community programs,
      (5) Fostering health education programs, and
      (6) Informing the public of the facts related to health care of the aged.
   b. Specific activities by the state joint council or its members in implementing these objectives will depend on local conditions. It is recommended, however, that such activities give emphasis to meeting obvious needs that exist. It should be recognized that, particularly at the outset, some of the simplest activities can be among the most effective.
   c. Examples of such projects include:
      (1) Active participation in Governors' Commissions on Aging.
      (2) Efforts to extend special types of hospital, surgical, medical and nursing home coverage for older persons by prepayment plans and health insurance.
      (3) Provision of leadership in efforts to stimulate adequate indigent medical care programs at state and local levels.
      (4) Development of home care and special dental home care programs for the aged.
      (5) Exchange of information on administrative procedures and cost accounting.
      (6) Promotion of homemaker service programs.
      (7) Stimulation of rehabilitation of institutionalized and non-institutionalized persons.
      (8) Review of the activities of other organizations active in the field of aging.

(9) Liaison with other organizations—see 4c (8)—and offering of advice on the health care aspects of their programs.
(10) Leadership and cooperation with other organizations in improving health care services and facilities.
(11) Sponsorship of state and local conferences to explore methods of developing effective hospital-nursing home relationships.
(12) Inventory of medical facilities and services available to the aged, such as nursing homes and homes for the aged. Objective: more consistently high standards of care.
(13) Provision of adequate physical therapy services under medical supervision to nursing home patients; and, use of physical therapy services of hospitals.
(14) Initiation or cooperation with other organizations in the development of local agencies and other devices designed to supply information on facilities and services available to the aged who are in need of health care.
(15) Study and publicizing of the various mechanisms which aid in financing the medical and related services required by the aged.
(16) Periodic public reports.

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N. B. **Liaison with National Joint Council:**

In order to maintain close liaison, the national joint council receives fourteen copies of the minutes of the first formal meeting of state joint councils (for distribution to the board of directors), and two copies of subsequent meetings and news releases.

Building Committee Report

Dr. Ralph V. Everly, chairman, presented the following report:

Two years ago the house directed the construction of a headquarters building. This commission was directed to advise with the Board of Trustees and the Executive Committee on construction. We report the completion of this mission. As reported to you last year, your committee had some rather hectic times in attempting to develop within the budgetary limits established, a building which we felt would be suitable to house our association activities.

We want to express at this time our sincere appreciation to the members of the Council and the Executive Committee for their excellent cooperation and counsel given to this committee during the planning and construction phase. We have, we believe, developed for the association a home which is more than a mere shelter. It is durable, and we believe the community finds in it a clean, dignified, and unpretentious mien, which becomes the character of a good physician.

We are happy to report to this house that the building has been completed at a cost less than the contracted amount. While it is not a tremendous sum, nevertheless we are quite proud that we were able to accomplish this, as it seems currently in building projects today you find out that the final cost runs from 33⅓% to 50% more than anticipated. We also believe you will be interested in some additional figures which we have compiled concerning the ownership and the operation of the building. First, we would like to point out to you that the real estate upon which the building was constructed, in line of what the adjoining property is selling for has more than doubled in value since the association purchased this ground.

Previous space in the Hume Mansur Building was at a cost of 25¢ per square foot per month. On a three month's experience in our new building, we are finding that the cost of maintenance, which includes water, gas, electricity, janitorial service, trash service and yard service, is costing us at the rate of 7¢ per square foot per month. The cost of owning the building, based on the Internal Revenue Service depreciation schedule, figures out at 4.6¢ per square foot per month, making the total cost of owning and operating our own building 11.6¢ per square foot per month as compared to 25¢, which we were formerly paying. This leaves an ample cushion for repairs and upkeep expense which will begin developing in a few years. It is also interesting to note that had we leased the same amount of space we now have at the rate of 25¢ per square foot, the monthly rental cost to the association would have amounted to $2,937.75 per month.

It has been most gratifying for members of the committee to be present in the building when many of the members and their friends visited for the first time to hear the glowing remarks which were made about the efficiency and appearance of the building. We would like to thank the editor and his staff for developing the exceptionally effective resume of the building program which appeared in the August *Journal*. We would have been sorely pressed but for the generous help of all to whom we looked for guidance. The Council and the Executive Committee have been most kind and patient in helping us to walk the narrow line between short-sighted niggardliness and wasteful extravagance. Other officers of the association as well as individual members have generously contributed their time and wisdom.

We recommend that this committee be discharged.

This final report is cordially submitted by:

Frederic W. Brown, Fort Wayne
R. Case Hammond, Evansville
Harry Pandolfo, Indianapolis
Jack E. Shields, Brownstown
Ralph V. Everly, Indianapolis

REFERENCE COMMITTEE ACTION

Dr. Frank H. Green, chairman, presented the following report:

The Reference Committee on Miscellaneous Business met at 9:00 a.m. Oct. 8th and was called to order by its chairman, Dr. Frank Green.

Building Committee Report

The first business to come before the committee was the report of the Building Committee. The following resolution was adopted:

The reference committee accepts the report of the Building Committee, with the highest possible commendation for the astuteness, diligence, and

persistence with which the members of this committee pursued and discharged their duties. We recommend that this committee be continued for another year, during the period of construction guarantees.

Mr. President, I move the adoption of this section of our report.

(Motion seconded by many, put to vote, and carried.)

Convention Arrangements

The Reference Committee on Miscellaneous Business discussed the convention arrangements. The following resolution was adopted:

The committee is aware and is very appreciative of the immensity of detail required in the planning of a convention of such intricacy, magnitude and excellence.

We feel that there may be too many diversionary activities scheduled at the time of the scientific meetings to obtain the best attendance. It is hoped that this will be considered a constructive suggestion aimed at better attendance through promotion and programming.

Dr. Virgil McMahan, chairman of the Commission on Convention Arrangements, participated in the discussions and recommended that the format of the convention be changed so that the business of the convention be discharged prior to the start of the scientific sessions by appropriate changes in the Bylaws.

The Reference Committee on Miscellaneous Business concurs with this recommendation.

Interesting discussion of meetings in Kentucky and Ohio were contributed by their respective state presidents.

Mr. President, I move the adoption of this section of our report.

(Motion seconded, put to vote, and carried.)

Governmental Medical Services

The reference committee next considered the report of the Commission on Governmental Medical Services. Dr. Glen Ward Lee discussed his supplementary report. Further discussion was held by Drs. Philip Reed and Norman Booher. The reference committee accepts and commends the reports of the Commission on Governmental Medical Services and its supplements, as amended.

After discussion of Dr. Lee's supplementary report the committee recommends that the services of a psychiatric social worker be obtained as soon as possible to implement the program, these services to be dependent upon procurement of funds from sources acceptable to the ISMA for payment of salary and expenses incident to his function.

Mr. President, I move adoption of this section of our report.

(Motion seconded by many.)

Dr. Paris, speaking as chairman of the Council for the Council:

The hiring of a psychiatric social worker is such a new departure on the part of the Indiana State Medical Association and due to the fact that we do not have any funds available at this time and we are not sure where these funds may be coming from, the Council is moving that we refer this matter to the standing Commission on Governmental Medical Services and that this Commission ask the Council to help make this decision about hiring a psychiatric social worker. **I so move.**

(Dr. Paris' motion to amend the report of the Reference Committee on Miscellaneous Business was seconded by many, put to vote, and carried.)

REFERENCE COMMITTEE ACTION

Dr. Green continued with the report of the Reference Committee on Miscellaneous Business:

Mr. President, I move the adoption of this section of our report as amended.

(Motion seconded, put to vote, and carried.)

Commission on Aging

The committee reviewed the report of the Commission on Aging and commends this commission on its exceptional efforts, time and energy in the discharge of its duties and the excellent progress made in its first year, under the capable leadership of Dr. Nathan L. Salon.

The committee reviewed the Suggested Guide for State Joint Councils to Improve the Health Care of the Aged and recommends acceptance of this guide in full.

Mr. President, we move the adoption of this portion of our report.

(Motion seconded by many, put to vote, and carried.)

We noted that the Inter-Professional Relations Commission had no report since there was no business, and the reference committee recommends acceptance of the report of the commission.

Mr. President, I move the adoption of this section of our report.

(Motion seconded, put to vote, and carried.)

Mr. President, I move the adoption of this report as amended as a whole.

(Motion seconded, put to vote, and carried.)

I wish to thank all those who appeared before this committee for discussion and the members of the committee who served so diligently.

ELECTION OF OFFICERS

The following officers were elected:

President-elect—Donald E. Wood, M.D., Indianapolis

Treasurer—Irvin W. Wilkens, M.D., Indianapolis

Assistant Treasurer—Ottis N. Olvey, M.D., Indianapolis

AMA delegates and alternates for term expiring December 31, 1964:

Delegates: Harold C. Ochsner, M.D., Indianapolis
E. S. Jones, M.D., Hammond
Francis L. Land, M.D., Fort Wayne

Alternates: James H. Gosman, M.D., Indianapolis
Robert M. Brown, M.D., Marion
George W. Willison, M.D., Evansville

ADDRESS OF PRESIDENT-ELECT

Thank you so very much.

I felt somewhat like the expectant father. I had some idea of what was going on but I really didn't know just exactly what was going to be the outcome.

I accept your challenge because I feel that as the president-elect, to take over in the future, there is a grave responsibility, and I think that I can fulfill this responsibility that you have placed in me. Also, I want to say that I certainly will be happy to help Dr. Glock next year in any way that I can to make his year and to make the Indiana State Medical Association a better and bigger association.

Lastly, I would like to say that I feel very humble about this. The reason that I am here is because of all the work and activity of all of the members of this association; I am just their representative.

Thank you again so very much.

Place of 1964 Annual Convention

Dr. Lester H. Hoyt, on behalf of the Marion County Medical Society, invited the association to meet in Indianapolis in 1964, and **on motion of Drs. Glock and Black, the invitation was accepted.**

NEW BUSINESS

(1) On motion of Dr. Guy A. Owsley, taken by consent, the executive secretary was instructed to send appropriate telegrams to Drs. Walter L. Portteus and Kenneth L. Olson who are ill.

(2) Dr. P. J. V. Corcoran: I should like to introduce, for consideration by the association, Evansville as a convention city in the intermediate future. Evansville is already one of the leading convention cities of the state. We are developing convention facilities which we hope will be available in perhaps three or four years and we would like to ask the association to reckon with us in making plans for, as I say, the indeterminate, intermediate future.

Resolutions of Appreciation

Appreciation of President

Dr. Guy A. Owsley presented the following resolution, which was adopted unanimously:

WHEREAS, the past year has seen unusual and time-consuming activity in the expanding affairs of the Indiana State Medical Association; and

WHEREAS, these activities—plus others of established nature—have placed an unusually heavy demand upon the time and talents of the President of this association; and

WHEREAS, the said President has never been too busy to devote his efforts to the many programs undertaken by this association and, in so doing, has been called upon to travel many miles and to attend countless meetings; and

WHEREAS, the President of this association has conducted himself in such manner as to reflect lasting credit upon all members of the Indiana State Medical Association; now

THEREFORE BE IT RESOLVED that the House of Delegates of this association, assembled in 113th annual convention, does here and now express in the name of all association members, sincere thanks and gratitude to Harry R. Stimson, M.D., for his commendable year as President of the Indiana State Medical Association.

Appreciation of Scientific Exhibits and Art and Hobby Show

Dr. John M. Paris presented the following resolution which was adopted by consent:

WHEREAS, the scientific exhibits at this, the 113th annual convention of the Indiana State Medical Association, have been of exceptional excellence and quality; and

WHEREAS, the details concerned with the assembling of such exhibits require unusual effort, planning and time on the part of those directly concerned as well as those with overall responsibility; and

WHEREAS, the art and hobby show has been the best one ever exhibited at an ISMA meeting; now

THEREFORE BE IT RESOLVED that the House of Delegates, in convention assembled, does express its official thanks and gratitude to Dr. Donald G. Mason, chairman of scientific exhibits, and to Dr. Philip T. Holland, chairman of the art and hobby show, and their committee colleagues for the excellence of the presentations; and

BE IT FURTHER RESOLVED that this resolution of appreciation also be extended, with full gratitude, to the many individuals and organizations who played a part in the highly commendable exhibit array.

Appreciation of Communications Media

Dr. E. T. Edwards presented the following resolution, which was adopted by consent:

WHEREAS, the communications media of Indiana—newspapers, radio and television—have given generously of their time and talents in bringing activities of this, the 113th annual convention of the Indiana State Medical Association, to the public attention; and

WHEREAS, such public attention has, in the main, resulted in favorable manner to the medical profession; now

THEREFORE BE IT RESOLVED that this House of Delegates, in convention assembled, does here and now express its appreciation to the communications media for its assistance.

Appreciation of Hotel

Dr. Wendell C. Stover presented the following resolution, which was adopted by consent:

WHEREAS, the French Lick-Sheraton Hotel has provided excellent accommodations and quarters for individuals and groups concerned in the 113th

annual convention of the Indiana State Medical Association; and

WHEREAS, time and planning for a convention of this magnitude require unusual effort on the part of the hotel management and its staff; now

THEREFORE BE IT RESOLVED that the House of Delegates, now assembled in convention, does express its thanks to the French Lick-Sheraton Hotel management, staff and employees for their part in assuring success of the convention.

Appreciation of Commission on Convention Arrangements

Dr. William B. Challman presented the following resolution, which was adopted by consent:

WHEREAS, an enormous amount of time, planning and unusual effort are the necessary ingredients of any successful convention of the magnitude of the annual meetings of the Indiana State Medical Association; and

WHEREAS, the success of this — the 113th annual convention of the Indiana State Medical Association—has been dependent upon the cooperative effort of many individuals; and

WHEREAS, the primary responsibility for the entire convention has been that of the Commission on Convention Arrangements; now

BE IT RESOLVED that the House of Delegates, in convention assembled, does here and now extend its heartfelt appreciation and thanks to Dr. Virgil C. McMahan, chairman of the Commission on Convention Arrangements, and his colleagues on the commission; and

BE IT FURTHER RESOLVED that a copy of this resolution be forwarded to Dr. McMahan and the members of his commission.

Appreciation of Technical Exhibits

Dr. Glen Ward Lee presented the following resolution:

WHEREAS, the technical exhibits displayed at this, the 113th annual convention of the Indiana State Medical Association, have been of unusual interest and benefit; and

WHEREAS, such exhibits contribute immeasurably to the general success of the convention by providing members of this association with information of beneficial nature; now

THEREFORE BE IT RESOLVED that the House of Delegates, in convention assembled, does here and now express its thanks and appreciation to the many technical exhibitors.

Mr. President, I move the adoption of this resolution.

(Motion seconded unanimously.)

Adjournment

The House adjourned, *sine die*, at 4:00 p.m., Wednesday, October 10, 1962.

Association News

EXECUTIVE COMMITTEE

October 7, 1962

Present: Don E. Wood, M.D., chairman; Wendell E. Covalt, M.D.; Harry R. Stimson, M.D.; Maurice E. Glock, M.D.; John M. Paris, M.D.; Irvin W. Wilkens, M.D.

Frank B. Ramsey, M.D., editor of *The Journal*; Ralph Hamill, attorney, and James A. Waggener, executive secretary.

Membership Report

Number of members as of December 31, 1961		4,338
1962 members as of September 26, 1962:		
Full dues paying	3,696	
Residents and interns	161	
Council remitted	40	
Senior	365	
Honorary	3	
Military	47	
Total 1962 members as of September 26, 1962		4,312
Number of members as of September 26, 1961		4,306
Gain over last year		6

Number of AMA members as of Sept. 26, 1962		4,188
Total 1961 AMA members as of Sept. 26, 1961		4,184
Gain over last year		4
1962 AMA members: Dues paying	3,570	
Exempt, but active	618	
		4,188
Number who have paid state dues but not AMA dues for 1962		124

Headquarters Office

The secretary read a letter from the engineering firm of Fink, Roberts & Petrie, Inc., concerning the foundation walls, and **on motion of Drs. Glock and Stimson this letter is to be referred to the Building Committee.**

Proposal of Delta Air Lines. A proposal of the Delta Air Lines that the association purchase an air line credit card and make arrangements for issuance of their own tickets for travel of officers of the association, requiring an investment of $425.00, **was approved on motion of Drs. Glock and Stimson.**

Treasurer's Office

The treasurer's report, including an uncertified audit for the fiscal year ending September 30, 1962, by the auditors, Wolf & Company, **was approved on motion of Drs. Stimson and Covalt.**

Legislative Matters

The chairman of the Commission on Legislation presented, for the information of the committee, a card that had been suggested be sent to physicians to announce the closing of their offices on election day. He also reported on the status of HR 10.

The secretary read a letter which he had written the Indiana Pharmaceutical Association regarding a recent announcement by the head of the pharmaceutical board concerning drugs used by physicians for testing and the proposed requirement that these drugs should be handled by prescription through retail drug outlets.

Also reviewed was a letter from the Pharmaceutical Association concerning the legality of podiatrists in prescribing drugs.

A letter was also read concerning the pharmacists' feelings on physicians dispensing drugs.

By consent, these matters were referred to the Commission on Inter-Professional Relations.

Organization Matters

The secretary read a letter from the American Medical Association transmitting a complaint received from a patient concerning a physician charging for filling in insurance claim forms. By consent this file of material is to be referred to the Commission on Medical Economics and Insurance and the Grievance Committee.

Correspondence between Dr. Stimson and the Indiana Hospital Association concerning the accreditation team was reviewed for the information of the committee.

A letter from the Welborn Clinic concerning corporate practice legislation was read for the information of the committee.

An open letter to county medical societies from the American Medical Association was reviewed for the information of the committee.

Form letters from Blue Cross-Blue Shield concerning the enrollment campaign were reviewed for the information of the committee.

A letter from the Indiana State Nutrition Council requesting the association to name a representative to the State Nutrition Council was reviewed **and on motion of Dr. Glock, taken by consent, Dr. Olga Bonke Booher is to be requested to continue as the association representative on this council.**

A letter from the Indiana Retail Hardware Association, Inc., was read, contents noted, and no action taken.

New Business

Resolutions received since September 21 for presentation to the House of Delegates were reviewed.

The committee suggested that the secretary work through Dr. John D. VanNuys and inquire if he can arrange for Dr. Elvis J. Stahr, the new president of Indiana University, to be present at the January Council meeting.

The Journal

Dr. Glock discussed *The Journal* Business Advisory Committee and stated he felt that the committee was wrong in selecting the full-time secretaries of county medical societies to act in this capacity. Following discussion of this, on motion of Dr. Stimson, it was voted that a committee of

three members of the Council, appointed by the chairman of the Council, should act as business consultants of *The Journal*.

Future Meetings

A letter concerning a conference on Association Tax Matters, to be held in Chicago on October 16, 1962, by the United States Chamber of Commerce, was read, and it was decided that no representative would be sent to this meeting.

A letter from the Illinois Academy of General Practice concerning an area VD Conference, to be held in Chicago on November 9, 1962, was reviewed and it was agreed that no representative would be sent to this meeting.

A letter from the AMA transmitting a memorandum from the Department of State concerning a foreign policy conference to be held in Louisville in December was reviewed and **by consent it was agreed that no representative would be sent to this meeting.**

The dates of the AMA Clinical Session in Los Angeles, November 25 to 28, 1962, were called to the attention of the committee.

AMA Conference on Disaster Medical Care, Chicago, November 3-4, 1962. **Upon motion of Drs. Glock and Stimson the Commission on Governmental Medical Services was authorized to send one representative to this meeting.**

A letter concerning a meeting being called by Inland Steel at its general offices in Chicago on November 15 was read, and **on motion of Dr. Glock, taken by consent, it was agreed that a representative of the Commission on Medical Economics and Insurance be asked to represent the association at this meeting.**

Upon motion of Drs. Glock and Stimson, the entire Executive Committee expressed its appreciation for the fine services rendered to the committee and to the association by Dr. Wood and Dr. Covalt.

There being no further business the committee adjourned to meet again on October 10, 1962, following the meeting of the Council.

EXECUTIVE COMMITTEE

October 10, 1962

The Executive Committee met for organization purposes in the French Lick-Sheraton Hotel, French Lick, Indiana, following the close of the Council meeting, with the following members present:

Maurice E. Glock, M.D., president
Don E. Wood, M.D., president-elect
K. O. Neumann, M.D., chairman of the Council
Irvin W. Wilkens, M.D., treasurer
Wendell E. Covalt, M.D.
Ralph V. Everly, M.D.

On motion of Drs. Glock and Everly, Dr. Wendell E. Covalt was elected chairman for the coming year.

By consent it was agreed that the next meeting of the Executive Committee would be held on Wednesday, November 7, 1962, at the headquarters office, at which time the delegates and alternate delegates to the American Medical Association are to be requested to meet with the Executive Committee.

There being no further business the committee adjourned to meet again at 4:00 p.m. on Wednesday, November 7, 1962.

EXECUTIVE COMMITTEE

November 7, 1962

Present: Wendell E. Covalt, M.D., chairman; Maurice E. Glock, M.D.; Don E. Wood, M.D.; Kenneth O. Neumann, M.D.; Irvin W. Wilkens, M.D.; Ottis N. Olvey, M.D.

Frank B. Ramsey, M.D., editor of *The Journal*, Robert Hollowell, attorney, and James A. Waggener, executive secretary.

Membership Report:

Number of members as of Dec. 31, 1961		4,339
1962 members as of Nov. 1, 1962:		
Full dues paying	3,707	
Residents and interns	161	
Council remitted	40	
Senior	365	
Honorary	3	
Military	47	
Total 1962 members as of Oct. 31, 1962		4,323
Number of members as of Oct. 31, 1961		4,320
Gain over last year		3
Number of AMA members as of Oct. 31, 1962		4,198
Total 1961 AMA members as of Oct. 31, 1961		4,199
Loss over last year		1
1962 AMA members: Dues paying	3,580	
Exempt, but active	618	
		4,198
Number who have paid state dues but not AMA dues for 1962		125

Annual Convention, French Lick, October 7-10, 1962

A statement of expenses for Dean Benjamin F. Small was approved upon motion of Drs. Glock and Neumann.

A letter from F. H. Pierce, M.D., of Anderson, was read and on motion of Dr. Neumann, taken by consent, it was voted that the letter be received.

Headquarters Office

(1) *Student Loan.* The secretary reported on his recent conferences with the Indiana National Bank concerning the establishment of a Student Loan Fund similar to that which has been established by the American Medical Association, and also his discussion with officials of the bank con-

cerning the implementation of the provisions of H. R. 10 by the association. Proposals will be received on both of these for study by the appropriate committees.

(2) *Maintenance agreements.* The secretary reviewed proposals for services and maintenance agreements on the automatic controls and the air conditioning system, and on motion of Drs. Glock and Neumann, the committee voted to defer any action on this matter. The secretary was instructed to discuss this with the architect and the Building Committee and report back to the Executive Committee.

(3) *Final change order.* The final Change Order No. 2 for the construction of the building was presented to the committee for approval, it previously having been approved for submission by the Building Committee. Upon motion of Drs. Glock and Neumann the change order was approved and the president was authorized to sign for the association.

Treasurer's Office

The treasurer reported on the financial condition of the association. His report was approved by consent.

Legislative Matters

National

The president-elect discussed national legislative matters.

Local

Daily Legislative Service. A proposal from the Indiana State Chamber of Commerce for supplying the daily reporting service to members was brought to the attention of the committee at a proposed cost of $6.00 a service, plus envelopes and postage. Upon motion of Drs. Glock and Neumann, it was voted to subscribe to this service for the president, president-elect, and chairman of the Legislative Committee of the Woman's Auxiliary, for the officers of the Indiana State Medical Association, and the members of the Commission on Legislation.

Legislative Conference. A letter from the Lieutenant Governor advising the association of a legislative conference to be conducted by the Legislative Advisory Commission on November 27, 28 and 29, was read as a matter of information. No action was taken.

Legislative First Aid Station. A report was read from the Newsletter of the Louisiana State Medical Society concerning the success of a first aid station which the state society and the county medical society in Louisiana had established at their state house during their General Assembly. This matter was discussed rather widely and upon motion of Drs. Glock and Wood it was voted that the state association contact the Indianapolis Medical Society to determine if that society would be willing to help in operating a similar facility during the General Assembly in January.

Organization Matters

(1) A letter from the Joint Conference Committee on Expanding and Financing Nursing Education, informing the association it had been voted to dissolve this committee, was read as a matter of information.

(2) The secretary reported on correspondence between his office and the Continental Casualty Company representative and this was accepted as a matter of information.

(3) The request of General Hospital to use the mailing list of the association to inform physicians of a postgraduate educational program was approved by consent.

(4) The offer of Wolf and Company to supply a series of articles on the new retirement program adopted by the last Congress, which would include the appointment of this firm as the official accountants and consultants for the Indiana State Medical Association, was approved by consent.

(5) A letter from the Indiana Pharmaceutical Association was reported upon by the secretary for the information of the committee.

(6) The secretary reported that as a result of action taken at the French Lick meeting, Dr. E. S. Jones had extended an invitation for the Council on Occupational Health of the AMA to meet jointly with the Indiana State Medical Association in 1965. The secretary pointed out that the Council had accepted the invitation of the Indiana State Medical Association and he felt that an attempt should be made to procure suitable dates for this meeting without further delay. He recalled that there was some discussion of the possibility of the association receiving an invitation to hold its 1965 meeting in Evansville and he asked for directions as to what he should do. Upon motion of Drs. Glock and Neumann, this question is to be referred to the Council at its January meeting and the Executive Committee is to recommend to the Council that these bodies recommend to the House of Delegates that the 1965 meeting be held in Indianapolis.

(7) A letter from Dr. Nathan Salon concerning representatives of the association becoming members of the Joint Council to Improve the Health Care of the Aged was read and by consent it was agreed that the Council could name its own representatives to this joint council.

(8) Dr. Glock presented an article that he had received from Dr. Lloyd Hill of Miami county, and by consent it was agreed that this article should be published in *The Journal.*

(9) The secretary reviewed correspondence he had with the AMA concerning the implementation of Resolutions 19, 26, and 35, for the information of the Committee.

(10) Letter from the National Foundation, received by the Commission on Voluntary Health Agencies, was reviewed for the information of the committee.

The Journal

The editor asked the committee its opinion as to whether or not *The Journal* of the association should continue to carry cigarette advertising. On motion of Dr. Glock, taken by consent, it was agreed *The Journal* should continue to accept this advertising.

Future Meetings

The Indiana Farm Bureau meeting in Indianapolis on November 12; the meeting on insurance at the Inland Steel Company, Chicago, November 15; the Governor's Conference on Indiana's Economic Future in Indianapolis on November 20, and the AMA Clinical Session in Los Angeles, November 25 to 29, were all called to the attention of the committee.

Also, the annual meeting of the State Chamber of Commerce on November 29 was called to the committee's attention. Dr. Wood said he would attend this meeting.

There being no further business the committee adjourned to meet again at 5:00 p.m., Sunday, November 25, 1962, in the Hospitality Room at the Biltmore Hotel, Los Angeles.

EXECUTIVE COMMITTEE AND AMA DELEGATES

November 7, 1962

Present: *Executive Committee:* Wendell E. Covalt, M.D., chairman; Maurice E. Glock, M.D.; Don E. Wood, M.D.; Kenneth O. Neumann, M.D.; Irvin W. Wilkens, M.D.; Ottis N. Olvey, M.D.

Frank B. Ramsey, M.D., editor of *The Journal;* Robert Hollowell, attorney, and James A. Waggener, executive secretary.

AMA delegates: Harold C. Ochsner, M.D.; Francis L. Land, M.D.; Jack E. Shields, M.D.

AMA alternates: James H. Gosman, M.D.; Robert M. Brown, M.D.; William B. Challman, M.D.

AMA Section on General Practice: Lester D. Bibler, M.D.

AMA Section on Pathology: Lall G. Montgomery, M.D.

Resolutions adopted by the House of Delegates of the Indiana State Medical Association for submission to the American Medical Association on the subject of voluntary health agencies and on intern and residency training programs were approved for presentation to the AMA.

Resolutions from other states concerning a federation of medical staffs of non-university hospitals adopted by Maryland, a resolution on health insurance adopted by Florida, and a letter from Dr. J. S. DeTar of Michigan concerning a non-participation resolution were all reviewed for the information of the committee and delegates.

Dr. Montgomery and Dr. Land discussed a resolution previously introduced by the Indiana State Medical Association concerning the activities of the Council on Medical Education and Hospitals with respect to requirements of fully organized out-patient departments in hospitals as a prerequisite for approved intern training purposes. It was pointed out that the Council had informed the reference committee that they were not requiring these departments, but copies of letters which had been received from the Council on this question were reviewed in which the Council is demanding organization of such departments. Upon motion of Dr. Glock, seconded by Dr. Covalt and others, the secretary was instructed to prepare another resolution on this subject for submission to the AMA.

A letter from the New York Medical Society concerning the operation of the hospitality rooms at the AMA meeting was read for the information of the committee and delegates.

The secretary asked for direction concerning the desires of the committee for the operation of the hospitality suite in Los Angeles. By consent, it was agreed that the hospitality room would operate from 5 to 7 p.m. daily, beginning November 25.

A letter from the I. U. Alumni Association concerning their desire to hold a reception for the Indiana alumni in the Indiana hospitality suite was read and it was agreed that the reception could be held on Monday night, November 26, from 5 to 7 p.m.

The question of the delegates being responsible for inviting certain key people to visit the Indiana room and also the question of delegates being on hand to act as hosts during the hours the room is open was discussed. It was taken by consent that Dr. Wood should make out a schedule of responsibility for the delegates with respect to the hospitality room.

Upon motion of Dr. Glock and Dr. Neumann, Dr. Wood was elected chairman of the delegation for the Los Angeles meeting.

Upon motion of Dr. Land, seconded by many, Dr. E. S. Jones was elected as floor leader for the Los Angeles meeting.

Dr. Bibler then discussed the McKittrick report for the information of those present.

There being no further business, the meeting adjourned to meet again at 5:00 p.m. Sunday, November 25, 1962, in the Indiana State Medical Association hospitality suite in the Biltmore Hotel, Los Angeles.

THE COUNCIL

French Lick
October 7, 1962

The Council convened at 3:00 p.m., Eastern Standard Time, in the Mural Room of the French Lick-Sheraton Hotel, French Lick, on October 7, 1962, with Dr. John M. Paris, the chairman, presiding. Roll call showed the following present:

Councilors:

First District—William B. Challman, Mount Vernon (also AMA alternate delegate)
P. J. V. Corcoran, Evansville, councilor-elect
Second District—E. T. Edwards, Vincennes
Third District—John M. Paris, New Albany (also AMA alternate delegate)
Donald M. Kerr, Bedford, alternate
Fourth District—Joe M. Black, Seymour
Robert M. Reid, Columbus, alternate
Fifth District—V. Earle Wiseman, Greencastle
A. W. Cavins, Terre Haute, alternate (also Associate Editor, *Journal*)
Sixth District—William R. Tindall, Shelbyville
Seventh District—Ralph V. Everly, Indianapolis
Albert M. Donato, Indianapolis, councilor-elect
Eighth District—Not represented
Ninth District—Kenneth O. Neumann, Lafayette
Albert E. Stouder, Kempton, alternate
Tenth District—Ralph C. Eades, Valparaiso
Eleventh District—E. S. Rifner, VanBuren
Lowell J. Hillis, Logansport, alternate councilor-elect
Twelfth District—Milton F. Popp, Fort Wayne
William R. Clark, Fort Wayne, alternate councilor-elect
Thirteenth District—Burton E. Kintner, Elkhart

Officers:

Harry R. Stimson, Gary, president
Maurice E. Glock, Fort Wayne, president-elect
Irvin W. Wilkens, Indianapolis, treasurer

Journal:

Frank B. Ramsey, Indianapolis, editor

Executive Committee:

Don E. Wood, Indianapolis, chairman (also chairman, Commission on Legislation).
Wendell E. Covalt, Muncie, member.

Guests:

Harold C. Ochsner, Indianapolis, AMA delegate
E. S. Jones, Hammond, AMA delegate
Francis L. Land, Fort Wayne, AMA delegate
Jack E. Shields, Brownstown, AMA delegate
James H. Gosman, Indianapolis, AMA alternate delegate
Robert M. Brown, Marion, AMA alternate delegate
George W. Willison, Evansville, AMA alternate delegate
Virgil C. McMahan, Vincennes, chairman, Commission on Convention Arrangements
Lester H. Hoyt, Indianapolis, vice-chairman, Professional Advisory Committee of Blue Cross
Norman R. Booher, Indianapolis, chairman, Commission on Voluntary Health Agencies
M. C. Topping, Terre Haute
Glen Ward Lee, Richmond, member, Commission on Governmental Medical Services

Staff:

Ralph Hamill, attorney
Robert J. Amick, field secretary
Howard Grindstaff, field secretary
J. A. Waggener, executive secretary

On motion of many, seconded by Dr. Stimson, minutes of the July 14, 1962, Council meeting were approved as printed in the September, 1962, issue of *The Journal*.

The chairman announced that a technical error was made at the July Council meeting, at which time the Council approved the appointment of a committee consisting of three full-time county medical society executive secretaries to assist with the business management of *The Journal*. **On motion of Drs. Stimson and Edwards this action was rescinded and the chairman of the Council was authorized to appoint three members of the Council to serve in this advisory capacity.**

The chairman stated he felt the Council Liaison Committee with the Indiana University School of Medicine should be reactivated, as, in view of the fact that the university has a new president, the association should establish official contact as a state association with the university. **It was taken by consent that this committee would be appointed by the new chairman of the Council.**

Reports of Councilors

Elections of councilors and alternate councilors were reported as follows:

First District—P. J. V. Corcoran, Evansville, councilor. Gilbert M. Wilhelmus, Evansville, alternate councilor
Seventh District—Albert M. Donato, Indianapolis, councilor
Tenth District—Lowell H. Steen, Whiting, councilor
Eleventh District—Lowell J. Hillis, Logansport, alternate councilor
Twelfth District—William R. Clark, Fort Wayne, alternate councilor
Thirteenth District—Jene R. Bennett, South Bend, councilor

Reports of Officers

DR. MAURICE E. GLOCK, president-elect, presented an invitation from the Evansville Chamber of Commerce to the Indiana State Medical Association to hold its convention in Evansville in 1965 when a new convention center now under construc-

tion will be open. **This matter was referred to the Commission on Convention Arrangements by consent.**

DR. IRVIN W. WILKENS, treasurer, reported that the total cost of the headquarters building up to the present time, including land and furnishings, is $397,921.88, which is within the $400,000.00 allocated by the House of Delegates.

Dr. Wilkens asked for an expression from the Council as to the procedure to be followed in order to make up the existing deficit in operating expenses and to make the final payment on the building by the first of 1963. He stated it will be necessary to either (1) borrow the entire amount needed from the bank at 5% interest, or (2) cash some bonds that are nearing maturity but which are not earning 5%, and borrow only $18,000.00.

On motion of Drs. Stimson and Rifner, the Council voted that the second proposition, that of liquidating some of the association's assets and borrowing the additional amount needed, be adopted.

DR. FRANK B. RAMSEY, editor of *The Journal*, reported on the financial condition of *The Journal*, saying that the deficit incurred this year would be offset in 1963 by the increase in the subscription rate. He also announced that he would present an amendment to his report to the House of Delegates to the effect that the Council had reconstituted the Business Advisory Committee for *The Journal* as a committee of the Council, to be appointed by the chairman of the Council from the Council membership.

Reports of Guests

In the absence of Dr. A. C. Offutt, the chairman spoke on the matter of polio immunization in his community, saying that all of the Ohio river counties had started immunization programs, using Type I polio vaccine. The supplemental report of the Commission on Public Health, to be presented to the House of Delegates, contains a resolution "that the use of oral, living, poliomyelitis vaccine, not be recommended at this time." The chairman asked that some thinking be given to deleting this section of the report of the Commission on Public Health and suggesting that "this should be a local option."

DR. NORMAN R. BOOHER, chairman of the Commission on Voluntary Health Agencies, complimented Dr. Glen Ward Lee on the superb job which he did as chairman of the Steering Committee at the AMA National Congress on Mental Health which was held in Chicago October 4 to 6, 1962.

National Foundation. Dr. Booher reported that the following letter was prepared as directed by the Council at its July meeting, with the advice of the attorney and the executive secretary, to be sent to the president of the National Foundation over the signature of Dr. Stimson:

October 7, 1962

Mr. Basil O'Connor
President, National Foundation
800 2nd Avenue
New York, New York

Dear Mr. O'Connor:

For the past three years the Commission on Voluntary Health Agencies of the Indiana State Medical Association has been given the task of evaluating for the four thousand, three hundred physicians of this association all of the voluntary health agencies who request approval of their programs through this commission. In the study of the answers to the questionnaire submitted by the National Foundation to this commission, on July 3, 1962, certain discussions and questions have arisen which have caused the commission to postpone final decision on this organization, pending further information.

For your information, some of the discussions and questions under consideration involve the following:

The National Foundation for Infantile Paralysis was organized in 1938, its purpose being to lead, direct, and unify the fight against poliomyelitis by promoting study, and research, into the cause, nature and prevention of poliomyelitis and prevention of its harmful sequelae, as well as to provide medical care for patients afflicted with the disease. Statistics show national polio incidence has been reduced from an average annual incidence of 39,000 to 1,500 the past year. The State of Indiana State Board of Health, for Indiana, shows that in 1952 there were 1,610 cases of polio reported and in 1961—21 cases reported and that in 1962, up to September 15, 7 cases had been reported.

This is a wonderful accomplishment and we congratulate you on the part and role therein which the foundation played. We believe that one of the things which made your efforts successful was your concentration in this one field. This was accomplished under your original statement of purpose in 1938 which is as follows:

"1. To direct, unify, stimulate, coordinate and further the knowledge of, and the work being done on any and all phases of infantile paralysis, including study and research into the cause, nature and methods of prevention of the disease and the prevention of harmful after-effects of the disease."

We note that in 1958 your articles were amended to include the following purposes:

"2. To initiate, promote, assist, encourage, develop, maintain, conduct and carry on, directly or indirectly, studies, investigations and research in any way relating to medicine and health and allied subjects, including the cause, prevention and treatment of disease.

"3. To initiate, promote, assist, encourage, develop, maintain, conduct and carry on, directly or indirectly, activities to increase the knowledge on all phases of any disease or diseases affecting human beings, including the nature and causes of any diseases and the methods of their prevention and treatment."

We note that the 1961 campaign raised almost $27 million dollars and that the goal for 1962 is $45 million dollars. We cannot tell from the report which we have examined what percentage of the almost $27 million was devoted to polio research, polio centers, therapy and matters connected with or relating to poliomyelitis, but from the reports examined, apparently, it was a relatively small amount and that the net, after the 13% cost of raising the fund and four percent administration expenses, was devoted to research in connection with birth defects, arthritis, etc. It appears that the polio problem is now reduced to techniques, arousing the public to take advantage of the present existing methods of immunization, and therapy for

those crippled. Thanks to the work which you and other organizations have done, the polio problem is now coming under control and there now exists the knowledge and means of reducing it to the status of a solved problem.

There are two things which concern us. We question the efficacy of a voluntary health agency attempting to cover the complete field of medicine and health and allied subjects, including the cause, prevention, and treatment of all diseases. There are now sound, voluntary health agencies in most of the fields which are in the greatest need of research.

In the past it has been considered a sound, basic standard for judging a voluntary health agency that there be no avoidable duplication by such agency of the work of other sound organizations. No organization can spread its talents and efforts over many specialties and be highly proficient in any one.

The other matter which we question is whether the public is adequately informed and advised in the promotion and solicitation of funds and the publicity connected therewith of what proportion of the fund raised will be used for matters connected with polio research and that the remaining funds may be scattered over any and all phases of any and all diseases affecting human beings, including birth defects and such things as a grant to study the effect of certain anti-vitamin chemicals in producing cleft palates in mice. For many years the public had been educated to think of the foundation as being in the field of poliomyelitis. The material used in the recent campaign, such as the statement in the literature and on billboard advertising, "Guardian's of the Nation's Health" and the use of pictures of attractive, crippled children, with the implication that they are polio victims, may be calculated to foster the continuation of that impression in the minds of the public. It seems to us that the public should be thoroughly, specifically and definitely advised as to what percentage of the fund raised will be used in connection with poliomyelitis and what part will be spread over other diseases, and what diseases will be researched.

You state that you are not encroaching upon or duplicating services of other health agencies, but supplementing them. It is difficult to see how the stated purposes above quoted can be carried out without encroaching upon or duplicating the work of the many other sound organizations now established as voluntary health agencies, doing commendable work, each in its own field.

We highly approve of your first and original objective set forth in 1938 and quoted above in this letter.

There is still need of help to obtain the complete immunization against poliomyelitis and for centers for therapy of those stricken, although that is a problem well on the way to solution, and it does not appear what part of the proposed $45 million campaign fund will be devoted to poliomyelitis.

At present we do not believe we have sufficient assurance that a substantial portion of the funds raised will not be used in encroaching upon or duplicating the work of other sound voluntary health agencies now in particular fields, and concentrating upon a specific and particular problem and with an established medically and scientifically sound program, which has already been developed. For that reason we again congratulate you upon the work done in the field of poliomyelitis and approve that purpose and objective as stated in your original purposes, which now appears as purpose number 1 in your Articles of Incorporation. As to the additional referred stated purposes "2" and "3", it seems to us that it should be made definite and clear to the general public what percentage of the funds raised will be devoted to poliomyelitis and that it should also be made clear to the general public that the remainder of the funds raised will not be used for poliomyelitis, and the public should be informed as to the purposes to which such funds will be devoted. We also question the efficacy of any use of funds raised which would constitute an avoidable duplication or over-lapping of the work of any other sound voluntary health organization, if such exists.

Sincerely yours,

Harry R. Stimson, M.D.
President, Indiana State Medical Association

Dr. Stimson said this letter was discussed thoroughly by the Executive Committee at its last meeting and was approved by the Executive Committee for referral to the Council.

On motion of Drs. Popp and Edwards the words "including birth defects and such things as a grant to study the effect of certain anti-vitamin chemicals in producing cleft palates in mice" were deleted, and the letter was approved for mailing to the National Foundation.

DR. GLEN WARD LEE, chairman of the Committee on Mental Health of the Commission on Governmental Medical Services, reported on the three day Congress on Mental Health, sponsored by the American Medical Association, which was held in Chicago October 4, 5 and 6, 1962, with 51 in attendance from Indiana. The purpose of the congress was twofold: (1) To help to enunciate the new policies of the AMA regarding mental health as published in the handbook entitled, "Action for Mental Health," and (2) to put organized medicine in the position of leadership in the field of mental health.

This is to be accomplished in Indiana by a steering committee composed of five members each from the Indiana State Medical Association, the Indiana branches of the American Psychiatric Association, and the Mental Health Association. It is anticipated finances for the work of this committee will become available from a federal appropriation through the State Commissioner of Mental Health.

(See minutes of the meetings of the House of Delegates, December Journal, pages 1887-89 for Dr. Lee's full report.)

District Meetings

District meetings were reported scheduled as follows for 1963:

First District—Evansville, ————.
Second District—Bloomington, May or June, 1963.
Third District—Bedford, May 22, 1963.
Fourth District—Aurora, 2nd or 3rd Wednesday in May.
Fifth District—Greencastle, May 8, 1963.
Sixth District—Richmond, May 16, 1963.
Seventh District—Martinsville, ————.
Eighth District————————.
Ninth District—Lebanon, May 15, 1963.

Tenth District————————, May —, 1963.
Eleventh District—Delphi, May 15, 1963.
Twelfth District—Fort Wayne, May 22, 1963.
Thirteenth District—Elkhart, September 18, 1963.

Unfinished Business

1. *Convention Arrangements.* DR. VIRGIL C. McMAHAN, chairman of the Commission on Convention Arrangements, spoke of the decrease in income from exhibits over the last French Lick meeting and urged the Council members to urge their district members to visit the technical exhibits. He also called attention to the many fine scientific exhibits which had been procured for the convention.

On motion of Drs. Popp and Eades, the Council voted that a letter of appreciation and thanks, to be signed by the president of the association, should be sent to Colonel Thomas O. Middleton who arranged transportation of the space exhibit from and back to Brooks Air Force Base in Texas.

2. *Building Committee.* DR. RALPH V. EVERLY, chairman, presented a report from the Building Committee. (See page 1890, December *Journal*, for full report.)

3. *The Liaison Committee between the Council and Blue Shield* had no report.

4. *Blue Cross.* DR. LESTER H. HOYT, vice-chairman of the Professional Advisory Committee of Blue Cross, reported that Dr. Kenneth O. Neumann was unanimously elected to the Blue Cross Board at the quarterly meeting of the Board of Directors of Blue Cross on September 27.

5. *Blue Shield members-at-large.* Election of two members-at-large, to replace two members whose terms will expire March, 1963, was deferred until the January Council meeting.

Blue Shield Board district members. **The Council confirmed the following district nominations for membership on the Board of Directors of Blue Shield for the three-year term expiring March, 1966:**

Representing

District 2—C. Philip Fox, Washington.
District 3—John M. Paris, New Albany.
District 6—W. U. Kennedy, New Castle.
District 11—John A. Bowers, Kokomo.

Legislative Matters

DR. DON E. WOOD, chairman of the Commission on Legislation, reported on local and national legislative activities and thanked members of the Council and their wives for their work on behalf of the Commission on Legislation.

Membership Matters

Remission of state dues. **On motion of Drs. Tindall and Challman, remission of the state dues of a member of the Henry County Medical Society, due to illness and hardship, was approved.**

New Business

1. *Matters referred to Council by Executive Committee.*

a. *Better Business Bureau membership.* **By consent the Council authorized the payment of a $150.00 membership in the Better Business Bureau for 1963.**

2. *Election of two members to Trust Committee of Indiana Medical Education Foundation.* **On motion of Drs. Everly and Eades, Drs. Maurice V. Kahler and Lawson J. Clark were nominated to succeed themselves for three-year terms ending October 31, 1965, and Dr. Loren H. Martin was nominated to fill the unexpired term of Dr. Roy V. Myers whose resignation was presented to the Council. Dr. Stimson's motion to close the nominations was seconded by many and the secretary was instructed to cast the unanimous ballot of the Council for the above mentioned physicians.**

Membership of this committee is as follows:

	Term expires
Don E. Wood, Indianapolis	Oct. 31, 1963
Roy Geider, Indianapolis	Oct. 31, 1963
James W. Denny, Indianapolis	Oct. 31, 1964
Loren H. Martin, Indianapolis	Oct. 31, 1964
Maurice V. Kahler, Indianapolis	Oct. 31, 1965
Lawson J. Clark, Indianapolis	Oct. 31, 1965

3. *Election of Journal editors.* **On motion of Dr. Popp, seconded by many, the present editor of *The Journal*, Dr. Frank B. Ramsey, Indianapolis, and the present associate editors. Drs. A. W. Cavins, Terre Haute; Lall G. Montgomery, Muncie; David A. Bickel, South Bend, and Stephen L. Johnson, Evansville, were re-elected for 1963.**

4. *Resolutions to be introduced* in the House of Delegates were read by title and discussed.

5. *1965 Annual Meeting of the AMA Council on Occupational Health.* Dr. E. S. Jones reported he had proposed to the AMA Council on Occupational Health that it meet in Indiana in 1965 in conjunction with the Indiana State Medical Association. Attendance would be approximately 400 members and they would require from 200 to 260 hotel rooms. **On motion of Drs. Popp and Black, the Council voted to extend an invitation to this organization to meet with the Indiana State Medical Association in 1965.**

6. *Appointment of Dr. Francis L. Land to AMA Committee.* Dr. Jones announced that Dr. Francis L. Land had been appointed chairman of the AMA Committee to Study the Relationships of Internships and Outpatient Departments.

7. *Safety belt literature.* By consent the Council approved of the Woman's Auxiliary distributing literature to promote the use of safety belts.

There being no further business the Council was adjourned to meet again on Wednesday, October 10, 1962, in the French Lick-Sheraton Hotel, immediately following adjournment of the House of Delegates.

THE COUNCIL

French Lick
October 10, 1962

The Council met for its second meeting at the close of the final session of the House of Delegates on Wednesday, October 10, 1962, in the Mural Room at the French Lick-Sheraton Hotel, French Lick, Indiana, with twelve councilors, the president, president-elect and treasurer present. Dr. John M. Paris, chairman, called the meeting to order.

New members of the Council were introduced as follows:

First District—P. J. V. Corcoran, Evansville.
Seventh District—Albert M. Donato, Indianapolis.
Tenth District—Lowell H. Steen, Whiting.
Thirteenth District—Jene R. Bennett, South Bend.

Elections for 1962-63

1. *Chairman of Council.* By secret ballot, in accordance with the Constitution and Bylaws, Dr. Kenneth O. Neumann, Lafayette, was elected chairman of the Council for 1962-63.

2. *Executive Committee.* **Upon motion of Dr. Donato, Dr. Ralph Everly, Indianapolis, was nominated to become a member of the Executive Committee. Dr. Edwards moved that the nominations be closed and the executive secretary cast the unanimous ballot for Dr. Everly. Seconded and carried.**

Upon motion of several Dr. Wendell E. Covalt, Muncie, was nominated to be a member of the Executive Committee for the coming year. On motion of Dr. Edwards, seconded by many, the nominations were closed and the secretary was instructed to cast the unanimous ballot of the Council for Dr. Covalt's election.

Procedure Manual

On motion of Dr. Glock, taken by consent, the secretary was instructed to prepare a standard operation procedure manual for the chairman of the Council.

Date for January Meeting

The date for the January Council meeting is to be set by the chairman of the Council following information concerning the ability of Dr. Elvis J. Stahr to attend.

There being no further business, the meeting was adjourned.

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Indiana state medical association.
Journal.
v.55, 1962.

DATE	ISSUED TO
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	B. Erven

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